DOCUMENT RESUME

ED 074 902 HE 003 869

TITLE	Fiscal Support and Resource Allocation. A Discussion Paper for the Master Plan for Higher Education in Connecticut.
INSTITUTION	Connecticut Commission for Higher Education, Hartford.
PUB DATE	Feb 73
NOTE	104p.; Resource group 8 report, document no. 16
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Educational Economics; *Educational Finance; Educational Planning; Financial Support; *Higher Education; *Master Plans; *Statewide Planning

ABSTRACT

This document presents the findings of the resource group in charge of finance for the master plan for higher education in the state of Connecticut. Specific areas addressed by the group are (1) expenditures for current operations, (2) revenue for current operations, (3) capital budgets, (4) budgetary procedures and expenditure controls, and (5) the independent institutions. (HS)

ED 074902

FINANCE

FISCAL SUPPORT AND RESOURCE ALLOCATION

The Report of

RESOURCE GROUP VIII

A Discussion Paper for the

MASTER PLAN FOR
HIGHER EDUCATION IN CONNECTICUT

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

Document #16
February 1973

HE 00 3869

Note: This report is the work of the Resource Group; the reader is reminded that the recommendations made in this report are not necessarily opinions or positions of the Commission for Higher Education or any other group.

STATE OF CONNECTICUT

COMMISSION FOR HIGHER EDUCATION

P.O. Box 1320 HARTFORD, CONNECTICUT 06101

AREA CODE 203 566-3913

February, 1973

To the Reader:

The 1972 General Assembly passed Public Act 194 which directed the Commission for Higher Education to develop a Master Plan for Higher Education in Connecticut by January 1974. In response, the Commission determined a structure designed to insure broadly based participation in the development of the plan. An overview of that structure is contained in the following document.

One of the most important elements of the Master Plan structure is the Resource Groups. Since September 1972, these groups, made up of over two hundred persons, have addressed themselves to major topics for the Master Plan. The reports of these groups have been made available to public boards of higher education with the request that the reports be disseminated to the chief executives and to the chief librarians of each institution and that the broadest discussion possible of the resource groups' topics be encouraged among faculty, students and interested groups. In addition, copies are being made available through public libraries and to organizations and governmental agencies which might be interested. Because the supply of the reports is limited, any interested individuals are permitted to reproduce any or all reports.

This report is one of eight Resource Group Reports. It should be recognized that the topics assigned to the Resource Groups are not mutually exclusive. Therefore, the reader is encouraged to read all eight reports.

The Commission for Higher Education is most grateful to the many individuals who gave freely of their time and energies serving on Resource Groups. The excellent groundwork they have provided in their reports will facilitate the deliberations of additional groups and individuals as the process of the Master Plan development continues.

MEMBERS OF THE COMMISSION FOR HIGHER EDUCATION

Donald H. McGannon, Chairman, New Canaan
James J. Dutton, Jr., Norwich
Henry F. Fagan, Stratford
Miss Anne M. Hogan, Putnam
Miss Helen M. Hogan, Cheshire
Robert J. Jeffries, Westport
Mrs. Norma A. Jorgensen, Newington
Miss Margaret Kiely, Bridgeport
Mrs. Bernice Niejadlik, Danielson
Mrs. Irene Novak, Westport
John R. Reitemeyer, Barkhamsted
William J. Sanders, ex officio, West Hartford
The Reverend Herbert Smith, Hartford
Orville J. Sweeting, New Haven
Sister Mary Theodore, West Hartford

BOARD OF TRUSTEES FOR THE UNIVERSITY OF CONNECTICUT

Gordon W. Tasker, Chairman, Hartford
Merlin D. Bishop, West Hartford
Mrs. Eugene D. Jones, Wilton
Mrs. Albert N. Jorgensen, Jr., Newington
Walter B. Kozloski, Farmington
Mrs. Conrad J. Kronholm, Jr., Hartford
John M. Lupton, Wallingford
John T. Macdonald, Hartford
Joseph R. McCormick, Wethersfield
The Honorable Thomas J. Meskill, Hartford
Carl W. Nielsen, Hartford
William J. Sanders, Hartford
Charles Stroh, Hartford
Robert F. Taylor, Hartford
W. DeHomer Waller, New Haven

BOARD OF TRUSTEES FOR STATE COLLEGES

Mrs. Bernice C. Niejadlik, Chairman, Danielson
Frank Cammarano, New Haven
James E. Dyer, Danbury
Richard Gurney, Lakeville
Francis W. Hogan, Torrington
Ernest A. Johnson, Hamden
Miss Laura Johnson, Hartford
Ramon M. Martinez, Middletown
Marcus R. McCraven, New Haven
James F. McNally, Hartford
John F. Robinson, West Hartford
Alvin B. Woods, Bloomfield

BOARD OF TRUSTEES FOR REGIONAL COMMUNITY COLLEGES

Henry F. Fagan, Chairman, Stratford
Roger B. Bagley, Manchester
Robert P. Giannini, Bridgeport
Mrs. Elizabeth Joyner, Winsted
Paul Mali, Groton
Mrs. Dorothy C. McNulty, West Hartford
Marcos Ocasio, New Haven
Vincent J. Scamporino, Middletown
Mrs. Beryl Strout, Wallingford
W. Lonsdale Taylor, Woodstock Valley
Mrs. Marjorie Terrell, West Hartford
Max R. Traurig, Waterbury

BOARD OF TRUSTEES FOR STATE TECHNICAL COLLEGES

William Horowitz, Chairman, New Haven
Thomas G. Carruthers, Vernon
Mrs. Virginia D. Christian, Norwich
Mrs. Betty Lou Dorin, Berlin
G. Eugene Goundrey, Middletown
Mrs. Jane Dargan Humphries, West Hartford
Miss Margaret Kiely, Bridgeport
Nicholas A. Longo, Putnam
John E. Toffolon, Riverton

MANAGEMENT/POLICY GROUP

Henry E. Fagan, Chairman
  Board of Trustees Regional Community Colleges
Mrs. Bernice C. Niejadlik, Chairman
  Board of Trustees State Colleges
William Horowitz, Chairman
  Board of Trustees State Technical Colleges
Gordon W. Tasker, Chairman
  Board of Trustees University of Connecticut
Donald H. McGannon, Chairman
  Commission for Higher Education
Robert A. Kidera, President
  Connecticut Conference of Independent Colleges

Executive and General Assembly Liaison

Representative Howard M. Klebanoff
Stuart Smith, Office of the Governor
Senator Ruth O. Truex

REVIEW AND EVALUATION GROUP

Samuel M. Brownell
Consultant on Urban Education, Yale University
John J. Driscoll, President
Connecticut State Labor Council, AFL-CIO
The Reverend Edwin R. Edmonds
Dixwell Avenue Congregational Church, New Haven
Theodore F. Hogan, Jr., Chairman
State Commission on Human Rights and Opportunities, New Haven
Arthur Howe, Lyme
Carmine R. Lavieri
Secretary, Connecticut Bar Association, Winsted
Ms. Laura M. Pope, Executive Director
Connecticut Association of Boards of Education, Inc., Hartford
Dennen Reilley, West Hartford Public Schools, West Hartford
Mabel Murphy Smythe, Phelps-Stokes Fund, New York
Arthur L. Woods, President
Connecticut Business and Industry Association, Inc., Hartford

Ex-officio Members

Adolf G. Carlson, Commissioner
Department of Finance and Control
Ruben Figueroa, Commissioner
Department of Community Affairs
Mrs. Gloria Schaffer, Secretary of State

MANAGEMENT INFORMATION SYSTEM PROJECT TEAM

Dorothy Goodwin, The University of Connecticut
Cletus Clow, State Colleges
Kenneth Summerer, Regional Community Colleges
Joseph Karpowich, State Technical Colleges
Francis Degnan, Commission for Higher Education

George Hall, IBM
Charles Lounsbury, IBM
Roger Kalar, IBM

COMMISSION FOR HIGHER EDUCATION STAFF

Warren G. Hill, Chancellor
Louis Rabineau, Vice Chancellor; Director, Program Planning
Francis J. Degnan, Director, Research and Publications
R. Kent Fielding, Associate in Higher Education
Margaret A. Duffy, Associate in Higher Education
Mary Ellen Starwick, Special Assistant
Linwood Robinson, Special Consultant
Josephine Cauley, typist

MASTER PLAN STAFF ASSOCIATES

David Basch, Board of Trustees for State Colleges
Brian H. Burke, University of Connecticut
Joseph Dunn, Central Connecticut State College
W. Lewis Hyde, Connecticut Conference of Independent Colleges
Stanley Macklow, Norwalk State Technical College
Bernard Shea, Board of Trustees of Regional Community Colleges
Sally A. Morgan, University of Connecticut

INTRODUCTION

The following report has been prepared by the Resource Group for consideration by the Commission for Higher Education as it develops a Master Plan for higher education in Connecticut. To insure clear understanding of this report a number of points should be emphasized:

- The findings and recommendations are the considered judgment of the individual Resource Group. They do not necessarily represent an opinion or position of the Commission for Higher Education or any other group such as the Management/Policy or Review and Evaluation Group.

- This report is one of eight reports. The Resource Group reports, as a whole, are position papers for consideration in the development of the Master Plan. They should not be construed as constituting a first draft of the Master Plan. Subsequent to further discussion and comment, the recommendations made in reports may be retained, revised, or deleted in the Master Plan.

- The recommendations of the group may conflict with recommendations made by other groups. The reconciliation of conflicting recommendations will be considered in the process of developing a draft Master Plan.

- The development of a Master Plan is a dynamic process requiring continuing input from many sources. Although the Resource Group reports provide an important source of judgments about the elements of the plan, additional reaction, comment, and thought is required before an initial draft of the Master Plan can be completed.

All questions and comments concerning this report should be addressed to Master Plan Staff Associates, c/o The Commission for Higher Education, P. O. Box 1320, Hartford, Connecticut 06101.

PROCESS OF THE MASTER PLAN

Groups Involved in the Master Plan

I. Commission for Higher Education: The State's coordinating agency for higher education was requested by the General Assembly (P.A. 194, 1972) to develop, in cooperation with the boards of trustees of the constituent units of the public system, a Master Plan for Higher Education in Connecticut. The plan is to be completed and submitted to the General Assembly by January, 1974.

II. Management/Policy Groups: A steering committee for the Master Plan process; membership consists of the chairmen of the boards of trustees for the constituent units, and the president of the Connecticut Conference of Independent Colleges. Liaison representation from the Governor's office and from the General Assembly are also represented.

III. Resource Groups: These groups are charged with developing position papers on specific topics for utilization in the development of a Master Plan. Membership is proportionately balanced between the higher education community and non-academics to insure that a broad spectrum of viewpoints be represented in group deliberations. Each group was assigned specific questions by the Management/Policy Group. In addition, each group was encouraged to address any other questions as it saw fit.

IV. Review and Evaluation Group: A group invited to review, evaluate, and make comments on the Resource Group reports and successive drafts of the Master Plan. Ten members represent a wide spectrum of the state's business and public interest activity and three ex-officio members are from state government.

V. Master Plan Staff Associates: Each of the constituent units of the public system and the Connecticut Conference of Independent Colleges have provided staff support for the Master Plan project. The staff associates serve a dual function: (1) each staff associate provided staff assistance to a Resource Group and, subsequently, (2) the staff associates will, in collaboration with the Commission staff, prepare the draft of the Master Plan.

VI. Constituent Unit Boards of Trustees, Including Faculty, Students and Administration: All boards of trustees of the higher education system are asked to review carefully the Resource Group reports and the Master Plan drafts to follow. It is expected that each institution will encourage the fullest possible discussion among faculty, students, and administrators.

VII. The Public: In addition to the higher education constituencies noted above, a vital input to the Master Plan is the participation of all who are interested, including: individuals in industry, labor, minorities, professionals -- in short, all organizations and individuals interested in higher education. Comments are invited at any stage of the development of the Master Plan. However, for consideration for the initial draft of the Master Plan, comments must be received by April 1973 and in the final draft of the Master Plan by September 1973.

AN OUTLINE OF ACTIVITIES FOR THE DEVELOPMENT OF THE MASTER PLAN

Activity

1. CHE requests staff assistance from constituent units — 6/72
2. CHE appoints Management/Policy Group
3. Management/Policy Group:
   a. Identifies elements of Master Plan
   b. Develops queries to be addressed
   c. Appoints Resource Groups
4. CHE holds Colloquium Orientation meeting
5. CHE appoint Review and Evaluation Group
6. CHE approves interim report for transmittal to Governor — 12/72
7. Resource Groups complete and transmit papers to Management/ Policy Group
8. Management/Policy Group distributes Resource Group reports to Constituent units, Review and Evaluation Group, and other interested groups and individuals
9. Comments on Resource Group reports are submitted by Review and Evaluation Group, constituent units, and other interested individuals and groups
10. Initial Draft of Master Plan is prepared and distributed to constituent units and Review and Evaluation Group
11. Initial reactions are received and Draft of Master Plan is amended
12. CHE sponsors public presentation of amended Draft of Master Plan and solicits comments from all groups and individuals who are interested
13. Comments reviewed and evaluated and final draft prepared
14. Management/Policy Group receives final comments on final Draft of Master Plan from constituent units and Review and Evaluation Group, reports to CHE
15. CHE approves final draft of Master Plan and transmits it to the Governor and General Assembly — 12/73

CONNECTICUT COMMISSION FOR HIGHER EDUCATION

MASTER PLAN FOR HIGHER EDUCATION

REPORT OF RESOURCE GROUP VIII - FINANCE

Fiscal Support and Resource Allocation

February, 1973

CBT THE CONNECTICUT BANK AND TRUST COMPANY

CONNECTICUT BANK BUILDING
ONE CONSTITUTION PLAZA
HARTFORD, CONNECTICUT 06115

EDWIN L. CALDWELL VICE PRESIDENT AND ECONOMIST

February 15, 1973

Mr. Donald H. McGannon
Chairman, Commission for Higher Education
c/o Westinghouse Electric Corporation
90 Park Avenue
New York, New York 10016

Dear Mr. McGannon:

On behalf of Resource Group VIII - Finance of the Master Plan for Higher Education, I submit to you the attached report. We were happy to participate in this important effort of the Commission and hope that our report contributes positively to it.

The members of the Resource Group have given generously of their time and effort in recent months, and are prepared to convene again if needed as the development of the Plan progresses.

Sincerely yours,

Edwin L. Caldwell

Edwin L. Caldwell

ELC:sg

VIII. FINANCE: Fiscal Support and Resource Allocation

Chairman: Dr. Edwin L. Caldwell, Vice President and Economist
Connecticut Bank and Trust Company

Staff Associate: Brian H. Burke, Assistant to the Provost
University of Connecticut

Miss Brenda BEAN
Student
University of Connecticut
Storrs

Mr. Raymond R. BEAUREGARD
Senior Economist, Northeast
Utilities Service Company
Hartford

Mr. Harry J. CUNHA
Associate Professor of
Business Administration
Middlesex Community College
Middletown

Mr. P. Jerome CUNNINGHAM
Director of Financial Aid
Wesleyan University
Middletown

Mr. Ward S. CURRAN
Professor of Economics
Trinity College
Hartford

Mr. Fred J. DOOCY
Vice President, Public Affairs
Hartford National Bank
Hartford

Mr. G. Lowell FIELD
Professor of Political Science
University of Connecticut
Storrs

Mr. Kenneth W. FOGG, President
Waterbury State Technical College
Waterbury

Mrs. Shirley FOSTER
Hartford

Mr. Robert H. FRANKLIN
Executive Director
Connecticut Public Expenditure Council
Hartford

Miss Eleanor GILL
Dean, School of Nursing
University of Connecticut
Storrs

Mr. Ralph M. GOGLIA
Executive Assistant to Superintendent
of Schools
New Haven

Dr. Lawrence HARRIS
Dean, School of Business
Quinnipiac College
Hamden

Mr. Milton L. JACKSON
Comptroller, Opportunities
Industrialization, Inc.
New Haven

Dr. Algin B. KING
Dean, School of Business
Central Connecticut State College
New Britain

Mr. James S. LLOYD
Student
Middlesex Community College
Middletown

Mr. Paul PERREGEAUX
Branch Manager, Connecticut Bank
and Trust Company
Mansfield

Dr. Warren C. STOKER
Vice President
Rensselaer Polytechnic Institute
of Connecticut
Hartford

Mr. Thomas SULLIVAN
Director of Admissions
Thames Valley State Technical College
Norwich

Ms. Thelma WATERMAN
Director of Community Affairs
Connecticut College
New London

Designate for Dr. A. W. WOODRUFF:
Mr. Edward L. FRIEDMAN
University of Hartford
West Hartford

FOREWORD

Conventional wisdom instructs us to give a job to busy people if you want it done properly. I am happy to testify to the truth of this proposition. We gave twenty-one very busy people the job of analyzing the financial structure of higher education in Connecticut and making recommendations for its further development over the next five years. I think the following report will demonstrate that they were both diligent and effective in handling the task. I want to thank them for their contribution.

The effectiveness of any committee can usually be improved a great deal by good staff work. The Resource Group on Finance was fortunate to have the brilliant services of Brian H. Burke, Staff Associate of the Commission for Higher Education. His initiative, technical expertise, and hard work were indispensable to the Group. We warmly thank him for going the extra mile.

Edwin L. Caldwell, Chairman

ACKNOWLEDGMENTS

The members of the Resource Group on Finance wish to extend sincere thanks to the following people, who contributed in various ways to the development of this report. This acknowledgment does not necessarily imply their endorsement of the report.

Joseph Austin
Assistant Financial Vice President
The University of Connecticut

Edward Balda
Budget Division
Department of Finance & Control
State of Connecticut

Robert Bokelman
Connecticut Commission for
Higher Education

Searie Charles
Executive Director
Connecticut Regional Community
Colleges

Cletus Clow
Dean of Administration
Central Connecticut State College

Frank Degnan
Connecticut Commission for
Higher Education

Kent Fielding
Connecticut Commission for
Higher Education

Shirley Gates, Secretary to the
Vice President and Economist
Connecticut Bank & Trust Company

Mark Goodrich
Connecticut Public Expenditures
Council

Dorothy Goodwin
Assistant Provost
The University of Connecticut

Edward Hanna
Controller
The University of Connecticut

Warren Hill
Chancellor
Connecticut Commission for
Higher Education

Richard Lewis
Connecticut Commission for
Higher Education

John Murray
Load Forecasting Department
Northeast Utilities

John Patterson
Vice President
The University of Connecticut

Rodney Piper
Department of Finance & Control
Commissioner's Office
State of Connecticut

James Poloshian
Budget Division
State of Connecticut

TABLE OF CONTENTS

	Page
Letter of Transmittal	i
Members of Resource Group VIII - Finance	iii
Foreword	vii
Acknowledgments	ix
Summary of Findings and Recommendations	1
INTRODUCTION	7
I. EXPENDITURES FOR CURRENT OPERATIONS	11
II. REVENUES FOR CURRENT OPERATIONS	29
III. CAPITAL BUDGETS	55
IV. BUDGETARY PROCEDURES AND EXPENDITURE CONTROLS	61
V. THE INDEPENDENT INSTITUTIONS	69
VI. APPENDICES	73
Specific Questions and Answers	93
Bibliography	97

VIII. FINANCE: Fiscal Support and Resource Allocation

EXCERPTS OF PRINCIPAL FINDINGS AND RECOMMENDATIONS

**Denotes Recommendation

Operating Expenditures

1. Projections of total state spending and spending of the four constituent units of public higher education, excluding the University Health Center, reveal that over the planning period the continuation of current expenditures per student in dollars of constant purchasing power, plus the restoration of spending for such things as maintenance and support which have had to be deferred in recent years, can be accomplished with a portion of the state budget no larger than that in 1972-73.

   Factors having the greatest potential of increasing budget needs are:

   ...Collective bargaining

   ...Increases in part-time student enrollment

   ...Initiation of programs with low student-staff ratios

   ...Student financial assistance

   Factors having greatest potential to reduce budget needs are:

   ...Degree options which reduce the required amount of formalized and supervised learning

   ...Avoidance of program duplication, course proliferation and other arrangements which cause small classes where they are not required pedagogically

Tuition, Fees, and Other Revenue

2. The federal Higher Education Amendments of 1972 notwithstanding, the federal contribution to institutional budgets will on the average be a

Tuition, Fees, and Other Revenue (cont.)

constant or declining source of revenue in the early years of the planning period. The funding of those provisions in later years is conjectural.

**3. It is recommended that the Chancellor of Higher Education keep the institutions of higher education in Connecticut continually apprised of possible future funding from federal sources.

4. Even though enrollments are declining at the primary and secondary level shifts of resources from these areas to higher education will not take place in the planning period.

5. Tuition is a likely source of increased state and/or institutional revenue in the first planning period, and the increase it will provide to the state General Fund exceeds the potential cost of adequate, state-funded student financial assistance.

6. The yearly expenses for full-time Connecticut residents to attend public institutions of higher education in Connecticut (from $1600 at a Community College to more than $2500 at the University) represents a considerable sacrifice for the average Connecticut student and his family, and include tuition and required fees at the State College and University level considerably higher than the median of similar institutions of other states.

7. Using required student fees (not tuition) at the University of Connecticut for illustrative purposes: The fee increases approved for fall 1973 and spring 1975 could be avoided if current and anticipated institutional bond obligations were refinanced on thirty year amortization schedules rather than the current twenty year schedules; and a fee

Tuition, Fees, and Other Revenue (cont.)

reduction could be realized if the University could remit tuition for a number of its needy students rather than provide off-setting scholarships from existing fees.

**8. It is recommended:

a. that tuition charges at public institutions be graduated according to level of instruction, i. e., lowest at the lower division and highest at the graduate level, and that such tuition policy be accompanied by a program of incentive grants, based upon family income, for Connecticut students in public and private institutions in the state, and that this program be financed from the state General Fund, and that this plan involve institutional administration of the grants.

b. that any fundamental change in tuition charges be phased into over a three year period.

**9. It is recommended that the current State Scholarship Program be expanded to be able to provide a number of awards equaling 10% of the high school graduates of a given year.

**10. It is recommended that thirty year amortization of bonds financed by institutional fund sources be seriously considered by fiscal authorities.

Capital Budgets

11. The state pattern of capital spending is essentially unplanned, not coordinated with operating budget preparation, and bears little or no relationship with legislative authorization.

Capital Budgets (cont.)

12. While there are certain definite capital needs at many institutions, a general increase in capacity of the total higher education plant in Connecticut is not needed.

**13. It is recommended that a time plan be settled upon in the current year to allow capital spending to proceed on a scheduled, continuous basis for those projects which are already planned and which the institutions can justify to the most essential for their particular purposes; and that lowest priority be given to those capital proposals whose principal effect is to make the system of higher education more extensive and whose existence must be justified on significant, overall, state-wide enrollment increases.

Budgetary Procedures and Expenditure Controls

14. The existing calendar for operating budget approval thwarts rather than promotes responsive, flexible, and efficient institutional decision making.

15. The current policies by the Department of Finance and Control of pre-audit controls of day-to-day institutional spending interfere with educational decisions and prevent the development of management competence at the institutional level.

16. In the light of the purely incremental budget regulations of recent years, the targets of the budget allocation formula of the Commission for Higher Education (the SCHLDE formula) have been reduced to mere post budget indices.

17. The SCHLDE budget technique is a very useful tool for allocating budget recommendations among units, but its current application is not

Budgetary Procedures and Expenditure Controls (cont.)

sufficiently sensitive to program cost differences.

**18. It is recommended that public institutions of higher education be allowed to make employment commitments, without prior approval, for a portion of the new positions included in the Commission for Higher Education budget recommendations for the subsequent fiscal year so that they may participate in professional labor markets at optimal times of the year.

**19. It is recommended that the Governor provide broad spending guidelines to the constituent units of public higher education, to be monitored and controlled by the boards of trustees and the administrative officers of each unit, and that existing pre-audit controls of daily institutional decisions be discontinued.

**20. It is recommended that to improve budget planning, accountability, and to enhance mutual understanding of administrative decisions, the development of a management information system proceed as rapidly as possible, and that the resources needed for its development be provided as an appropriation to the Commission for Higher Education.

**21. It is recommended that the procedures and formulas for allocation of funds among constituent units be modified to include program cost differences.

The Independent Institutions

22. Since there is neither significant overall enrollment expansion anticipated nor wide-spread excess capacity in the private college sector, and because of the existence of Special Act 53 and Public Act 140 of

The Independent Institutions (cont.)

the state statutes, no new public programs to channel students into the independent colleges need be devised.

**23. It is recommended that pilot contracts under Public Act 140 be funded and commenced as soon as possible in order to create the flexibility and preparedness needed to utilize the resources of the independent institutions whenever the long run interests of state can be better served by so doing.

INTRODUCTION

INTRODUCTION

The report of Resource Group VIII is submitted as a foundation and catalytic document in the development of that part of the Master Plan for Higher Education dealing with finance. It contains useful information and productive recommendations, but it is neither exhaustive nor final. An exhaustive study of the finance of higher education will take many months or years of continuous study and planning. At each turn there are challenging questions and a dearth of information and data.

A final statement on finance for this first Master Plan requires not only this report but the responses it generates. Our projections are mechanical enlargements of the current year and serve primarily to indicate ranges of possibility. The final projections of a plan should seize the opportunity to include judgments of what <u>should</u> be spent and where.

The timing of this report also deserves comment. First, relative to the development of the reports of the other Resouce Groups, this report ideally should be produced last so that it could discuss the potential cost implications of their findings and recommendations. But time constraints forced its production simultaneously with the other reports.

And second, its timing in an historical context might call for a quotation from Dickens: "It was the best of times, it was the worst of times..." It was worst of times because so much uncertainty prevails, especially with enrollment trends. Yet it was the best of times because we are not likely to overshoot our mark by being caught in the ascending phase of a rising curve, as happened to so many plans for higher education in the sixties.

* * *

This report for the most part excludes comment on the University of Connecticut Health Center. The Resource Group believed that its rather limited time would be allocated more productively by concentrating on the matters of the four principal constituent units.

I. EXPENDITURES FOR CURRENT OPERATIONS

I. EXPENDITURES FOR CURRENT OPERATIONS

A. Historical

The expenditures for current operations in the public institutions of higher education in Connecticut have experienced marked growth in the last decade, increasing more than four-fold. As can be seen from Table 5 on page 32 the sources of the revenues include not only governmental appropriations but student fees, receipts from auxiliary enterprises, and various other gifts and grants. That which underpins the operations, however, and which in fact determines the size of the other sources of revenue is the state general fund appropriation shown historically on Table 1. This appropriation has increased some 434% in the last ten years, growing from $20.8 million in 1963-64 to an estimated $111 million in 1972-73.

This increase is due primarily to a virtual explosion of enrollments in the decade of the sixties, a nation-wide phenomenon experienced in most all quarters of higher education. It is well known that the baby boom of the 1940's had its impact on higher education in the 1960's. The college age cohort (age 18-24) increased by 4.2 per cent per year in that decade, faster than that of total population and real income. In addition, the fraction of that age group enrolling in college also grew, causing an average annual enrollment growth of 8.3 percent per year, or a doubling over 8 1/2 years. This compares with 1.6% average annual growth in the fifties, or a doubling every 42 1/2 years.* The growth of public higher education in Connecticut and the nation was even more dramatic, with enrollment more than tripling from 1960 to 1970. Full-time undergraduates in Connecticut increased from 13,279 to 45,220 and all students in all programs grew from 21,603 to 74,819.**

*James C. Byrnes and A. Dale Tussing, The "Financial Crisis" in Higher Education: Past, Present, and Future, Educational Policy Research Center, Syracuse University, September 1971, p. 3.

**Connecticut Commission for Higher Education, Higher Education Enrollment Survey, 1971, pp. 5, 8.

TABLE 1

GENERAL FUND APPROPRIATIONS AND EXPENDITURES
FOR HIGHER EDUCATION, BY CONSTITUENT UNIT, 1963-4 TO 1972-3
(thousands of dollars)

	63-64	64-65	65-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73
Community Colleges										
Appr.	--	--	635	2,129	4,689	5,769	9,909	12,144	14,254	17,070
Exp.	--	--	476	2,056	4,222	5,675	8,709	11,792	13,161	--
Technical Colleges										
Appr.	*	*	*	*	*	*	3,750	4,074	4,548	4,617
Exp.	731	1,109	1,532	1,844	2,142	2,550	3,425	3,902	4,245	--
State Colleges										
Appr.	*	*	*	12,590	17,510	19,962	24,601	28,474	30,179	29,795
Exp.	6,576	7,057	10,491	12,388	16,528	19,366	22,625	26,533	27,739	--
UConn (excl. Health Center)										
Appr.	13,585	14,681	20,052	20,447	29,711	32,112	36,595	40,851	44,700	44,321
Exp.	13,498	14,648	17,581	20,488	27,845	31,903	34,905	40,718	42,512	--
Health Center										
Appr.	--	--	451	687	1,721	3,311	5,694	7,172	13,191	13,729
Exp.	--	--	307	484	1,448	3,285	5,276	7,132	10,560	--
CHE										
Appr.	28	35	83	582	1,408	1,478	2,689	2,720	4,180	4,085
Exp.	4	32	56	539	967	1,316	1,614	3,264	2,660	--
TOTAL										
Appr.	**	**	**	**	**	**	85,454	96,511	111,052	113,680
Exp.	20,809	22,846	30,443	37,799	53,182	64,095	76,502	93,213	100,876	--

* Appropriation made to State Department of Education
** Incomplete due to above note

NOTE: Disparities between appropriations and expenditures are due to spending restrictions and to administrative cautions to insure that spending does not exceed appropriation.

Expenditures for Current Operations (cont.)

The decade of the 1960's was a time of rapid growth of almost all economic activity, public and private. Personal income from 1960 to 1970 more than doubled both nationally (from $401 billion to $804 billion) and in Connecticut (from $7 billion to nearly $15 billion). During this same period the fiscal activity of the state government more than tripled, with general expenditures increasing from $231 million in 1960 to $789 million in 1970. It is clear, then, that the growth of the state appropriations for operating budgets must be seen in two settings - the enormous enrollment pressures and the very rapid economic expansion of the public and private sectors which occurred during the 1960's.

To turn again to the more recent ten-year period originally referred to (1963-64 to 1972-73), the increase in general fund appropriations for operating budgets reported above included the creation of twelve community colleges, the University of Connecticut Health Center, and the Commission for Higher Education. The general fund appropriations to those institutions that were in existence at the beginning of the period grew as follows:

	(Millions of Dollars)		
	1963-64	1972-73 (estimated)	Growth
State Technical Colleges (Technical Institutions until 1968)	.7	4.4	529%
State Colleges	6.6	28.0	325%
University (excluding the Health Center)	13.5	44.0	225%
Total	20.8	76.4	267%

This is not to imply that had those additional institutions not been added, the total appropriations in 1972-73 would only have been some 76 million dollars. Clearly the existing institutions would have to have responded to the enrollment demands. The figures do show, however, that higher education in Connecticut has not merely grown larger but has also become

quite different.

To give some additional meaning to the aggregate figures presented so far, we received many requests to see them as ratios with key economic, demographic, or educational parameters and then to compare these ratios with other states and with a national average. Our findings in this area are in Appendix A.

Expenditures for Current Operations (cont.)

B. Projections

The Resource Group felt that one of the areas in which it could be helpful to the entire master planning effort was in the projection of the general fund appropriations needed for institutional operation over the planning period and comparing this with our projection of total state spending over the same period. Our desire to do this was spurred by comments of Lyman A. Glenny in his talk at Colloquium on Higher Education in New Haven on September 25, 1972.

> "I am quite sure that, with the exception of a few states, the proportion of the state budget going to higher education will be no greater in 1980 than in the next year or so--whether we have boom times or bad, or Republicans or Democrats in this office. Most states are already at this funding plateau. Others will quickly reach it. If funds increase it will result from a larger state income generally, not from a larger percentage of the state revenue. In the 1960's, enrollment doubled and budgets for higher education tripled, and the GNP going to higher education increased from one to two percent. The proportion of the GNP for higher education cannot keep that pace."

Since the projections were prepared without the knowledge of the findings or final recommendations of the other Resource Groups of the planning effort, they are essentially mechanical, based upon a structure assumed to be unchanging. Following the projections we will isolate and discuss those items which have the potential of altering them most significantly.

Preliminary to presenting the data there are a few ingredients which require discussion.

Enrollment

The most important factor is the enrollment component, which has seldom been so difficult to predict. For purely demographic reasons the projections of the Commission for Higher Education anticipated a decline in enrollment toward the end of the decade, but there are signs that the

peak may already be at hand. In short, uncertainty prevails. Therefore, we calculated the budgeting implications of high and low enrollment estimates rather than attempting to settle upon a specific figure.

Base Year of the Projections.

The nature of the projections is to assess what expenditure will be needed to maintain current per-student support in dollars of constant purchasing power over the planning period, and to estimate what portion of the total state budget this will require. What it does not do is assess the sufficiency of the expenditure of the current, or base year. In other words, inadequacies that may currently exist are built into the projections. The Group is aware of this and does not intend the projections to be forecasts of what should be spent, but rather as a broad-brush assessment of what expenditures could be made with the same proportionate share of the state budget. While we will make some general recommendations of increased support, a full examination of necessary qualitative improvements for the more than twenty institutions comprising the state system was not possible within the time constraints of this study.

The Community Colleges.

For two reasons the Regional Community Colleges deserve special comment. First, they comprise the only unit of public higher education in Connecticut which is still in a truly developmental stage. Therefore, they are particularly sensitive to perpetuating base year inadequacies as discussed in the above section. Also, their program development is in an evolutionary stage, with increasing emphasis on career and community service programs such as inhalation therapy or law enforcement. The enrollment growth indicated for the community colleges, particularly that in our high estimate, assumes that such programs will be initiated and attract

Expenditures for Current Operations (cont.)

many students not traditionally involved in higher education. Because of these factors, the per-student support at the Community Colleges is increased each year in our high estimates to 1976-77.

The second reason for special comment stems from the fact that so many of the Community College buildings are rented, causing the lease costs to be included as part of the general fund appropriation to the unit for current operations. No equivalent cost such as debt service is included for the other constituent units. Lease costs in the Community Colleges in 1972-73 are estimated at about $100 per year per student, but this would have to be reduced to account for the maintenance and upkeep that is either provided for in the lease or that is simply avoided due to non-ownership. Since the intention of our projections is to compare general fund appropriations of various years, and to compare each year with total state spending, we include lease costs for consistency. At the same time we state that existing accounting procedures do not readily reveal completely accurate comparisons of spending for students and total cost per student to the taxpayer.

* * *

What items assumed to be unchanging or nonexistent in our assumptions might affect the size of future operating budgets?

Part-time versus Full-time Enrollment.

One trend which seems to have emerged and which does have increased-cost implications is the increasing number of part-time students. The principal impact is not in the instructional budget but in supportive services and facilities. For example, a counselor, be he in admissions, financial aid, academic advising, or personal counseling, does not do half a job because he is talking with a half-time student. In fact, there is reason to

Expenditures for Current Operations (cont.)

Table 2

PROJECTED GENERAL FUND EXPENDITURES
OF THE FOUR CONSTITUENT UNITS OF PUBLIC
HIGHER EDUCATION IN CONNECTICUT
(excluding the U. of Conn. Health Center*)

I. Low Estimate

A. Assumptions:
1. Per FTE student support to continue at the 1972-73 estimated level, excluding inflation.
2. Inflation at 4% per year
3. Enrollment
   a. University, State Colleges, Technical Colleges: No growth beyond that projected for 1973-74
   b. Community Colleges: 5% growth per year beyond that projected for 1973-74
4. No other structural changes

B. Low Projections

	Community Colleges** FTE	Community Colleges** × $1,062 × 4% Comp.	Technical Colleges*** FTE	Technical Colleges*** × $1,781 × 4% Comp.
1973-74	16,500	18,223,920	2577	4,773,222
74-75	17,325	20,135,399	"	4,965,987
75-76	18,191	21,733,697	"	5,163,342
76-77	19,101	23,733,757	"	5,369,875
77-78	20,056	25,900,158	"	5,580,999
78-79	21,059	28,291,292	"	5,805,890

	State Colleges FTE	State Colleges × $1,449 × 4% Comp.	University FTE	University × $2,239 × 4% Comp.
1973-74	20,404	30,748,012	18,400	42,845,504
74-75	"	31,989,758	"	44,575,803
75-76	"	33,261,071	"	46,347,300
76-77	"	34,591,513	"	48,201,192
77-78	"	35,951,522	"	50,096,232
78-79	"	37,400,226	"	52,114,964

	Total	
1973-74	57,891	96,590,658
74-75	58,706	101,666,947
75-76	59,572	106,545,410
76-77	60,482	111,869,337
77-78	61,437	127,528,961
78-79	62,440	123,612,372

Expenditures for Current Operations (cont.)
Table 2 (cont.)

II. High Estimate
A. Assumptions
1. Per-student support
a. University, State Colleges, Technical Colleges: Per student support to continue at 1972-73 level, excluding inflation.
b. Community Colleges: Due to increasing emphasis on career and public service programs per student support will grow to $1209 (that requested for 1973-74) by 1976-77 as follows - 1973-74: $1062; 1974-75: $1100; 1975-76: $1150; 1976-77: $1209.
2. Inflation at 4% per year
3. Enrollment
a. University, State Colleges, Technical Colleges: 3% growth per year beyond the 1973-74 projection.
b. Community Colleges: Growth increasing to 12% per year by 1976-77 as follows: - 1973-74: as projected; 1974-75 increase by 7%; 1975-76: increase by 10%; 1976-77 increase by 12%.
4. No other structural changes
B. High Projections

	Community Colleges**	x (assump. 1b) x 4% Comp.
	FTE	
1973-74	16,500	18,223,920
74-75	17,655	21,012,981
75-76	19,420	25,124,625
76-77	21,750	30,766,027
77-78	24,360	35,812,708
78-79	27,283	41,726,210

	Technical Colleges***	x $1781 x 4% Comp.
	FTE	
1973-74	2577	4,773,222
74-75	2634	5,075,829
75-76	2713	5,435,835
76-77	2794	5,822,053
77-78	2878	6,232,873
78-79	2964	6,677,788

	State Colleges	x $1449 x 4% Comp.
	FTE	
1973-74	20,404	30,748,012
74-75	21,016	32,949,263
75-76	21,646	35,285,685
76-77	22,296	37,799,078
77-78	22,695	39,988,227
78-79	23,654	43,357,427

	University	x $2239 x 4% Comp.
	FTE	
1973-74	18,400	42,845,504
74-75	18,952	45,915,077
75-76	19,521	49,170,959
76-77	20,106	52,670,281
77-78	20,709	56,382,820
78-79	21,331	60,416,538

	Total	
	FTE	Expenditures
1973-74	57,881	96,590,658
74-75	60,257	104,952,150
75-76	63,300	115,017,104
76-77	66,946	127,057,739
77-78	70,642	138,416,628
78-79	75,232	152,177,964

*Projections including the Health Center and the Commission for Higher Education are shown in Appendix B.
**Appropriations include lease costs.
***Technical College enrollments are not FTE but full-time only. A Head count of part-time students is not made from which to compute FTE.

Expenditures for Current Operations (cont.)

believe that advising a part-time student is often more time consuming than advising a full-time student. Nor does a part-time student sit in only part of a library chair. We were not able to assess the magnitude of this phenomenon, but we have little doubt of its potential to command increased resources. We recommend that institutions not only prepare for it but also devise methods of more systematically including the need for supportive services such as counselors and advisors in budget indices.

Changing Distribution of Enrollment among the Units.

There is little or no consensus as to what will be the roles of the constituent units in the coming decade. We expect any change to be evolutionary and not to have vast redistributive effects over the first planning period. But the units to watch are the State Colleges and the Regional Community Colleges. There seems little doubt that the recent decrease of the birth rate will continue to reduce the student demand for teacher education programs, still the bulwark of the State College offerings. It follows that either the State Colleges will serve a smaller portion of the students in Connecticut public higher education, or they will initiate new or expanded programs. The nature of these programs will hold the budgetary secrets. Perhaps Resource Group I, in its discussion of the role and scope of constituent units, and Resource Group IV, in discussing programs and their location, will shed light in this area. The unit costs, the program demand, and the program objectives, benefits, or output are the variables of importance for budget planning. Officers of the State Colleges have indicated an interest in offering bachelor's degree opportunities to correspond to new programs developed by the Community Colleges. Such programs have the potential of high cost, but shared facilities and other arrangements may hold these down.

Expenditures for Current Operations (cont.)

There is little doubt that the state system of Community Colleges has the potential of providing genuine open access to the greatest number of citizens, of providing effective localized academic and career counseling and other supportive services, and perhaps of doing so at lowest unit cost. But it should be clear from the beginning that their per-student cost differentials from other institutions will not be as large as those that exist today. Any effort to accommodate a greater portion of the students in public higher education, be it with new or traditional programs, will require increased funding. The initiating of new programs in career and community service education will require not only developmental money, but generally increased spending per student due to the smaller student-staff ratios recommended by the Community Colleges in such programs. Also, the Community Colleges probably cannot attract large numbers of students into the traditional programs without generally upgraded facilities.

Changing Student-Staff Ratios: The enrollment boom of the sixties and the austerity programs of recent years have resulted in increasing student-staff ratios. The Finance Group does not feel that this gradual, attrition-based, essentially unplanned increase in student-staff ratios can go on without seriously affecting the quality of the education offered. However, there are methods of increasing average class size while retaining small classes where required. Some areas of potential benefit might include avoiding the proliferation of electives, or perhaps even the proliferation of requirements; eliminating unnecessary statewide or region-wide program duplication; or investing in flexible classroom buildings which can accommodate classes of various sizes. While the Resource Group did not have sufficient time to develop specific courses of action, we do

feel that strong institutional leadership, the provision of institutional flexibility, and interinstitutional cooperation are vitally necessary conditions for progress in the area.

Collective Bargaining: It seems to be a conditioned response in America that the advent of collective bargaining implies budget expansion. History certainly seems in large part to bear this out, so we must report that a collective bargaining agreement for state employees is a potential source of increasing the projections above. However, we feel there are good reasons for not having built the implications of collective bargaining into our projections. First, while most feel it is likely that a collective bargaining agreement will come out of the 1973 session of the Connecticut General Assembly, it is not yet certain. Second, even assuming that an agreement will be reached, it is not known who will be the bargaining units or agents. Third, and perhaps most important, bargaining is done within certain market realities. Because of the "buyers' market" for professional educational labor and the likelihood of items other than salary being bargained for, we feel that the four percent inflation already included in our projections should account for a major part of any salary increase.

However, we must acknowledge that the group was not in general consensus on this matter. We therefore offer below what the budget effect of a 5.5 percent per year salary increase would be. The method was to inflate the personal services portion of the total general fund appropriation (approximately 85%) at 5.5% per year.

Expenditures for Current Operations (cont.)

TABLE 3

TOTAL PROJECTIONS OF TABLE 2

ASSUMING 5.5% GROWTH PER YEAR IN PERSONAL SERVICES

	Low Estimate	High Estimate
1973-74	$ 97,822,190	$ 97,822,190
1974-75	104,518,700	106,290,280
1975-76	111,435,830	120,296,380
1976-77	119,381,360	135,589,660
1977-78	127,219,220	149,829,080
1978-79	136,115,760	167,570,760

New and Alternative Methods of Delivery of Higher Educational Services: Creative new methods of providing education no doubt have many implications, some of which are budgetary. The Finance Resource Group defers to Resource Group V, which has been studying this for the past year. At this juncture we have only two comments. First, there does not seem to be any consensus that the use of new media equipment is any less expensive, especially in early years of development. We do not see this as a source of budget reduction in the first planning period. Second, to the extent that the term "alternative approaches" means external degrees, credit by examination, or the three-year baccalaureate, there is little doubt that it has savings potential. Both the nature of the savings and the chance of realization in the first planning period, however, are uncertain. It is entirely plausible that external degree programs will serve large numbers of new people and thus reduce unit costs, but at the same time increase the total budget. Decisions to provide large amounts of credit in an untraditional

manner are normally evolutionary in nature and are not likely to have much impact over the next several years. But if and when educational decisions are made to require considerably less formal and supervised learning in the earning of the bachelor's degree, the savings in terms of expenditures per student will undoubtedly be considerable.

Student Financial Assistance: While this is an expenditure which has increased cost implications, it is intimately tied to tuition policy and will be discussed in that section of the report.

* * *

Budget Projections Compared to Projected Total State General Expenditures: Table 4 is a comparison of our high and low budget estimates with our projections of total state spending over the first planning period. Our methods of computation are described in detail in the appropriate footnotes. Columns b and c show projections of state personal income and general expenditures through 1979. Columns d and f are the low and high estimates of spending for higher education. Columns e and g show that both our low and high estimates represent a declining portion of the total state budget and that the tightest years are those at present and just ahead. Should these projections materialize, the conclusions are that the four constituent units of public higher education can maintain or improve upon current per-student support without having to bargain for a larger share of the state budget than at present. It seems that legitimate claims can and should be made in coming years for funds to restore spending in necessary areas such as maintenance and support which may have had to be deferred in recent years.

TABLE 4

EXPENDITURES FOR THE FOUR CONSTITUENT UNITS
OF PUBLIC HIGHER EDUCATION IN CONNECTICUT
(excluding the Health Center of the University of Connecticut)
COMPARED WITH TOTAL STATE EXPENDITURES:
ACTUAL 1965-72, ESTIMATED 1973, PROJECTED 1974-79
(millions)

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Fiscal Year	Fiscal Year Personal Income[1]	State General Expenditures[2]	Higher Education Four Units Expenditures with Low Projections	d÷c	Higher Education Four Units Expenditures with High Projections	f÷c
1965	$ 9417	$ 365	$ 22.8	.062	$ 22.8	.062
1966	10256	438	30.1	.068	30.1	.068
1967	11225	485	36.8	.075	36.8	.075
1968	12230	599	50.7	.084	50.7	.084
1969	13295	705	59.5	.084	59.5	.084
1970	14330	789	69.7	.088	69.7	.088
1971	15144	956	82.9	.086	82.9	.087
1972	15921	1114	87.7	.078	87.7	.078
1973	17430	1132	93.9	.083	93.9	.083
1974	18750	1253	96.6	.077	96.6	.077
1975	20018	1368	101.7	.074	105.0	.077
1976	21720	1522	106.5	.070	115.0	.076
1977	23370	1665	111.9	.067	127.1	.076
1978	25150	1836	117.5	.064	138.4	.075
1979	27060	2010	123.6	.061	152.2	.076

Through 1971, the average of the personal income figures of the two calendar years (U. S. Department of Commerce, Survey of Current Business) of a given fiscal year was used. For 1972, actual half-year personal income (Business Week, Sept. 9, 1972, p. 76) was added to half of personal income for 1971.

Extrapolation to 1979 was done by performing a least squares fit of six curve types and choosing the exponential form Ae^{Bx}. Personal income from 1960 to 1972 was the basis for the extrapolation.

[2]Three variables - state general revenues, state general expenditures, and general fund taxes, 1960-72, -- were regressed independently on Fiscal Year Personal Income. General Expenditures had the highest R^2. (.949).

Future expenditures were calculated from extrapolated personal income by using the regression equation generated in the step described above. That equation had a constant of -451.5545 and a coefficient on income of .0912.

II. REVENUES FOR CURRENT OPERATIONS

28/29/30/

Table 5 on page 32 shows the sources of current fund revenues to the units of public higher education in three years since 1965-66. The data were obtained from the HEGIS reports for the United States Office of Education of the Department of Health, Education and Welfare. We feel that they are essentially self-explanatory but require perhaps two comments. First, while the category Tuition/Fees is used in the HEGIS Reports, only the term "fees" is pertinent in Connecticut. The tuition charged to students in Connecticut accrues to the state general fund and is not currently at the disposal of public institutions of higher education. Second, the distribution of funds among the revenue categories reflects the policy that the state government will support those functions which are primarily educational, and that all other activities will be paid for from other sources, predominantly student charges.

Our principal purpose in the deliberations leading to the writing of this section was to examine the possibility of new or changing sources of revenue. We will report on three.

The Federal Government

One might expect that the writing of a master plan for higher education in 1973 would include a significant chapter on increased federal funding. The principal cause for that expectation would be the recent passage of Higher Education Amendments of 1972, potentially the most significant piece of higher education legislation in recent history. However, the existence of the provisions of the Act and the funding of those provisions are two different matters. Depending on funding, the principal provisions of interest to the Resource Group on Finance are:

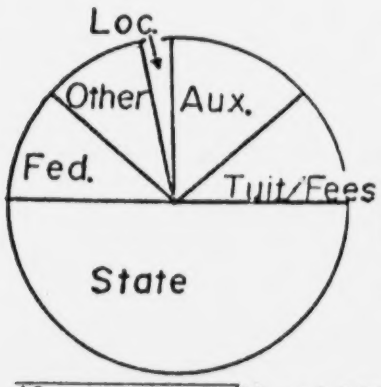
1. Increased student assistance based upon the "entitlement" concept. That is, each student is "entitled" to a Basic

TABLE 5

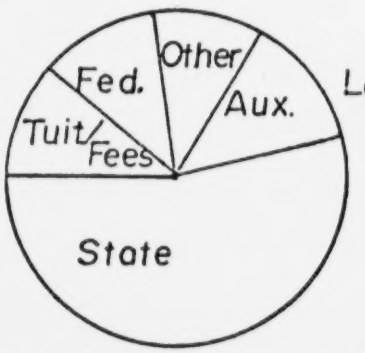
SOURCES OF ALL CURRENT FUND REVENUES
FOR PUBLIC INSTITUTIONS OF HIGHER
EDUCATION IN CONNECTICUT IN 1965-66
1967-68, and 1970-71*

	University		State Colleges		Two-year Colleges		Total	
A. 1965-66								
TOTAL Required	33,279	%	12,181	%	2,014	%	47,474	%
Fees	1,497	4	2,275	19	200	10	3,972	8
Rm., Brd., Other Aux.	4,884	15	3,188	26	19	1	8,091	17
Local Government	857	3	937	8	0	0	1,794	4
State Government	17,801	53	5,416	44	1,656	82	24,873	52
Federal Government	4,325	13	249	2	124	6	4,968	10
All Other	3,915	11	116	1	15	0	4,046	9
B. 1967-68								
TOTAL Required	55,413	%	23,904	%	8,259	%	87,576	%
Fees	4,297	8	3,469	15	1,015	12	8,781	10
Rm., Brd., Other Aux.	6,584	12	2,572	11	449	5	9,605	11
Local Government	7	0	0	0	0	0	7	0
State Government	28,648	52	15,625	65	6,529	79	50,802	58
Federal Government	7,627	14	1,216	5	258	3	9,101	10
All Other	8,250	15	133	1	8	0	9,280	11
C. 1970-71								
Total	74,796	%	42,452	%	20,813	%	138,060	%
Fees	7,878	11	8,347	20	2,485	14	18,711	14
Rm., Brd., Other Aux.	10,334	14	5,688	13	2,081	12	18,102	13
Local Government	1,266	2	0	0	0	0	1,266	1
State Government	40,156	54	25,874	61	15,491	71	81,560	59
Federal Government	11,979	16	1,380	3	699	4	10,059	10
All Other	3,183	4	1,188	3	25	0	3,957	3

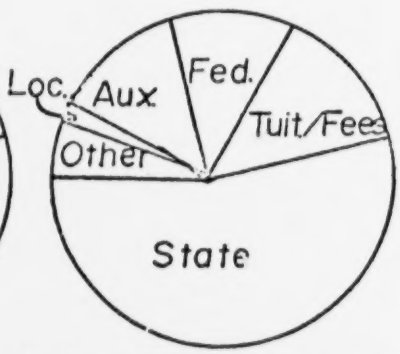
1965-66 Total



1967-68 Total



1970-71 Total



*Source: 1965-66 and 1967-68 from Financial Statistics of Institutions of Higher Education, Office of Education, Department of Health, Education, and Welfare

Opportunity Grant of up to $1400 per year minus his "expected family contribution".

2. Cost of Education Allowance to institutions enrolling students who receive entitlement grants and other federal assistance, and/or who increase the number of veterans enrolled.
3. A provision to assist the establishment and development of community colleges and other programs for occupational education.
4. A series of provisions to assist graduate education.

Most agree that due to the current efforts by the President to curtail total spending, and an apparent shift in priorities in the Department of Health, Education, and Welfare away from traditional higher education, the chances are quite slim that revenues from federal sources will increase much in the years immediately ahead. There is some hope that funding will proceed in the later years of the planning period but there is no way to tell how much this will represent.

The Shifting of Resources from Primary/Secondary Education

Some have shown that historically in America there has been a very consistent relationship between increases in aggregate income and increases in spending on education.* If this were to continue, with the anticipated decline in primary and secondary enrollments, the question arises as to whether funds might be shifted from the primary and secondary schools in the direction of higher education. With the critical assumption that the historical relationship between GNP and spending on all education will continue, a theoretical case can be made for this shifting of resources without damaging the necessary per student or per staff support in "lower" education. But it is the consensus of the Resource Group that this will

*Byrnes and Tussing, op. cit., p. 18.

not happen in Connecticut. First, since state support for primary and secondary education in Connecticut is not very great (the state contributed 31.3% of local school budgets compared to a national average of 40.7% in 1969-70) there is simply not a large amount that could be shifted. Second, the freeing of monies due to declining enrollments may spur communities to either improve program quality or more vigorously enter new programs such as those in early childhood education. Finally, and perhaps most likely, reduced needs at the primary/secondary level will allow for local property tax relief.

Tuition and Fees

Nothing occupied so much of the Resource Group's time as discussions concerning what portion of the total educational bill should be borne by the student and his family. While there was not complete consensus on each item it is an area where we feel we can provide productive discussion and recommendations. This section will contain three parts:

1. A presentation of the current tuition and fee structure in Connecticut, including:
   a. what portion of total educational cost to the student the current tuition and fees represent, and
   b. what portion of institutional revenues fees represent.
2. A discussion of the rationale for the existence and level of tuition.
3. The Resource Group recommendations regarding tuition and financial assistance, including several possibilities and their financial implications.

The Current Structure of Tuition and Fee Charges in Connecticut

There is an important distinction in Connecticut between tuition and fees.

Tuition - a charge made to all students in public higher education in Connecticut the revenues from which accrue to the state General Fund and are not earmarked for higher education. These charges per year in 1972-73 are:

For Connecticut residents	
The University of Connecticut	$350
State Colleges	$300
Regional Community Colleges	$200
State Technical Colleges	$200
All Non-Residents	$850

Institutional Fees - charges made to all students in public institutions of higher education in Connecticut the revenues from which remain with the institutions to pay for non-educational functions, that is, those not supported by state general fund appropriations. These fees vary among the institutions and ranged in 1972-73 from $15 per year at the State Technical Colleges to $290 per year at the University of Connecticut. Most institutions also have an additional fee for out-of-state students.

Tuition and Fees as Part of Total Student Expenses

There seems to be considerable confusion in the public mind concerning the cost to students of public higher education in Connecticut. To reduce this confusion somewhat we present Tables 6, 7, and 8. Table 6 shows the estimated 1972-73 student expense budgets at four public institutions in Connecticut. The data were submitted by the institutions' financial aid offices and the itemization is left as it was submitted. Table 7 is a

TABLE 6

ESTIMATED EXPENSE BUDGETS FOR FULL-TIME
CONNECTICUT STUDENTS AT FOUR STATE INSTITUTIONS
OF HIGHER EDUCATION, 1972-73*

Central Connecticut State College

Student College Fee	$ 150
Student Activity Fee	120
Tuition	300
Books & Supplies	150
Room & Board	980
Personal Expenses	450
Transportation	50
TOTAL	$2,200

Thames Valley State Technical College

	Dependent Commuter	Single Independen
Tuition & Fees	$ 215	$ 215
Meals & Housing	450	1,135
Books & Supplies	175	175
Personal Expenses	400	400
Transportation	700	700
TOTAL	$ 1,940	$ 2,625

Mattatuck Community College

Tuition	$ 200
Fees	100
Books & Supplies	140
Personal Expenses (including clothing, cleaning, laundry, recreation, snacks, etc.)	500
Miscellaneous Expenses (Doctors, Insurance, etc.)	200
Transportation	450
TOTAL	$ 1,590

The University of Connecticut

Tuition & Fees	$ 655
Room	485
Board	610
Books & Supplies	200
Miscellaneous Expenses	600
TOTAL	$ 2,550

*Selected from Information Supplied by the Financial Aid Offices of the Universit of Connecticut, Central Connecticut State College, Mattatuck Community College, and Thames Valley State Technical College. Itemization is presented as submitt

TABLE 7

YEARLY TUITION AND REQUIRED FEES AT A SELECTION OF STATE UNIVERSITIES, STATE COLLEGES AND STATE TWO-YEAR COLLEGES IN 1972-73

SUMMARY

	University	State Colleges Four-Year	Two-Year*
Range			
High	$ 760	$ 640	$ 800
Low	262	123	18
Median	558	498	298
Connecticut	655	570	266
Connecticut Rank	4	4	9

Selected States

Northeast: Connecticut, Delaware, Massachusetts, New York, Rhode Island

Midwest: Illinois, Indiana, Iowa, Michigan, Nebraska, Ohio, Wisconsin

South: Florida, Kentucky, Mississippi, North Carolina, Texas

West: California, Colorado, Oregon, Washington

* Data for two-year colleges available for only 16 of the 21 states.

TABLE 7 (cont.)

DETAIL

(All Selected States Ranked Most Expensive First)

	Universities		State Colleges		Two-Year Colleges
1)	U. of R. I.....$760	1)	N. Y. - Brockport.....$640	1)	Ind. - Vincennes.....$800
2)	Ohio State Univ..... 720	2)	Ind. State Coll..... 640	2)	N. Y. - Genessee C. C..... 600
3)	SUNY - Albany..... 690	3)	No. Iowa Univ..... 600	3)	Ohio - Sinclair C. C..... 490
4)	U. of Conn..... 655	4)	Conn..... 570	4)	Ill. - Kankakee C. C..... 394
5)	U. of Cal.-Berkeley. 640	5)	Fla. -U. of W. Fla..... 570	5)	Iowa - Iowa Cent. C. C..... 384
6)	Mich. State Univ.... 630	6)	Ohio-Young. State..... 570	6)	Mich. - Killog C. C..... 366
7)	U. of Iowa..... 620	7)	Ore. -E. Ore. Coll..... 560	7)	Ore. - Treasure Valley C. C.. 360
8)	U. of Florida..... 600	8)	R. I. - R. I. Coll..... 506	8)	Neb. - No. West. Neb. Coll... 330
9)	U. of Indiana..... 600	9)	Wash.-W. Wash. St. Coll.. 500	9)	Conn. - All C. C.'s..... 266
10)	U. of Wisc.-Madison. 590	10)	Wisc.-Wisc. St. U.-Oshkosh..... 500	10)	Fla. - Santa Fe Jr. Coll..... 264
11)	U. of Wash..... 564	11)	Ill.-So. Ill. U..... 498	11)	Wash. - Walla Walla C. C..... 249
12)	U. of Ill.-Urbana... 558	12)	Mich. -Lake Sup. St. Col. 492	12)	Texas - McLennan C. C..... 240
13)	U. of Col.-Boulder.. 553	13)	Miss.-Miss. St. Coll. for Women..... 465	13)	Colorado - C. C. of Denver... 234
14)	U. of Oregon..... 525	14)	N. C. -E. Carol. U..... 438	14)	Mass. - Greenfield C. C..... 227
15)	U. of Mississippi... 506	15)	Neb.-Kearney St. Coll.... 428	15)	Miss. - Miss. Delta Jr. Coll. 156
16)	U. of Delaware..... 500	16)	Col. -Adams St. Coll..... 390	16)	Cal. - Sierra Coll..... 18
17)	U. of Mass..... 450	17)	Mass.-Westfield St..... 350		
18)	U. of N. C. - Chappel Hill..... 402	18)	Del.-Del. St. Coll..... 325		
19)	U. of Nebraska..... 350	19)	Ky. - Ky. St. Coll..... 300		
20)	U. of Kentucky..... 330	20)	Texas - So. West Texas St. Univ..... 218		
21)	U. of Texas..... 262	21)	Cal. - Cal. St. at Bakersfield..... 123		

TABLE 8

ESTIMATED REAL COSTS OF HIGHER EDUCATION, 1971-72[1]

	Average Cost per student (thousands)	Total Cost (billions)	Percentage
1. Foregone income of students[2]			
a. Unrecovered loss	$2,900	$17.4	30%
b. Portion replaced by student's own part-time earnings and savings	700	4.2	7
c. Portion replaced by parents and spouses	1,150	6.9	12
d. Portion replaced by loans	180	1.1	2
e. Portion replaced by grants	170	1.0	2
Subtotal	$5,100	$30.6	53%
2. Incidental expenses of students[3]	500	3.5	6
3. Operating costs of institutions[3]			
a. Educational costs financed from tuitions and student fees	720	5.0	9
b. Educational and capital costs financed from public appropriations and philanthropy	2,025	13.9	23
c. Costs for organized research and public service	725	5.0	9
Subtotal	$3,470	23.9	41%
TOTAL	$9,070	$58.0	100%

[1]Source: Howard Bowan and Paul Servelle, American Association for Higher Education, Washington, D. C., August, 1972.

[2]Assumes that only full-time students forego income. Of the 8,714,000 students enrolled in 1971-72, about 6 million were full-time. U. S. Office of Education, *Projections of Educational Statistics to 1979-80* (1970 edition), pp. 22, 23, 26.

[3]Refers to 6.9 million students in full-time equivalents (*Ibid.*, p. 29). Operating costs of institutions omit auxiliary enterprises. These are included partly in incidental expenses of students and partly in the living costs of students that are not part of the real costs of education. Students would have board and room costs whether or not they were in college. Operating costs also omit capital costs because data are not available. Hence the figures are understatements.

comparison of tuition and fees at public institutions in Connecticut with those of twenty other states.

Table 8 is reproduced from a monograph by Howard Bowen and is a national summary of the costs of higher education. The part relevant for our purposes is the costs borne by the student which includes the concept of foregone earnings.

While again much of this is self-explanatory, a few comments are warranted. First, the discussions of "low cost" public education are obviously relative ones. While there is no doubt that the price to the student is less than it is at most independent colleges, the cash outlay represents a considerable amount of sacrifice and planning for the average student and his family. Second, while the existence of tuition in Connecticut is only two years old, the combination of tuition and fees at the four year colleges is well above the median of the states studied. Our third comment concerns the concept of foregone earnings, shown in Table 8 to be some $5,100 per year per student. While this "opportunity cost" is not often considered by the layman, it is a fundamental item of any professional economic analysis. Its inclusion is important in that it shows that the cost to the student is not only the cash outlay required for college attendance, but the income, savings, seniority, longevity, and other benefits that he does not receive while he is a student. Attendance presumes that the benefits exceed the costs.

Tuition and Fees as a Portion of Institutional Revenue

Table 5 shows that the operations of the public institutions in Connecticut depend upon a good deal more than the state appropriation, and that charges to students make up a major portion of that difference.

As indicated above the level of the fee is determined by the amount of funds needed to support operations which are not primarily educational, such as student union facilities, campus security, athletics, additions to financial aid and the amortization of dormitories and other non-educational facilities. These fees were traditionally rather low, but in recent years, especially when added to tuition, they have become quite significant. At the University, for example, fees will increase next year from $290 to $350 per year in addition to the $350 tuition. Generally increasing cost of services, as well as a new state policy requiring the University, rather than the State Comptroller, to begin to pay the retirement costs of employees in these service accounts, have caused this increase and possible increases at other institutions.

Several Group members, members of the Commission for Higher Education, as well as other interested officials and citizens have expressed concern about the level of fees charged. We have examined the issue and feel that there are steps that can be taken to reduce fees, or at least limit their increase. Two specific examples will be offered. We will use the University of Connecticut Auxiliary Services Fund for both examples, but feel the concept could apply to any public institution.

The Auxiliary Service Fund of the University of Connecticut budget represents approximately 25% of the yearly institutional revenues and expenditures. The largest source of revenue to this account is student fees. These fees plus the revenue from those activities which operate at a surplus, must be sufficient to meet current obligations plus provide for an adequate surplus of working capital. Both of our recommendations will reduce the yearly obligations of the fund, thus reducing the fees needed for revenue.

Change of Bond Amortization Schedule from Twenty to Thirty Years

The University finances, from its own auxiliary revenues, dormitories and other non-educational facilities and does so on twenty year amortization schedules. There are existing obligations of varying length of some $32 million, plus an anticipated $2.5 million in new issues, to be paid in declining installments over a twenty year period. These payments range from nearly $3 million in 1973-74 to some $2.5 million in 1978-79, the last year of the planning period. However, if the current obligations were refinanced and the new issues written for 30-year amortization, the yearly payment would be reduced each year to less than $2 million in 1978-79. This reduction would eliminate the need for the already approved $60 per year increase in fees 1973-74 and the planned $30 increase in 1974-75. According to the schedule there would be no fee increase needed until the spring semester, 1977. It should be clear that the increase in the bond length and the need to finance at a higher interest rate will increase the total payments nearly $12 million, from $34.7 million to $46.3 million. The Resource Group recognizes this but feels that the reduced cost per student may warrant its serious further consideration by fiscal authority of the state.

Reduction in the University Contribution to Student Financial Assistance from Student Fees

In the year 1971-72 the University, from its own sources, provided approximately one million dollars in financial aid, $750,000 of which was from the Auxiliary Services Fund. The Resource Group later in the report recommends that adequate financial assistance for all Connecticut residents in institutions of higher education in the state can and should be financed from the State General Fund revenue. If this were to supplant the $750,000 currently financed by student fees, it represents a potential reduction

of $40 per year per student.

Again, we have used the University for purposes of illustration, but believe that these and other steps are potentially applicable to all other public institutions.

Tuition: What Part of the Cost Should be Borne by the Student?

The question of whether to charge tuition and, if so, at what percentage of cost, raises an issue as old as the study of public finance. The issue is the benefit principle of taxation, which says: If the benefit of a public activity or service accrues solely to the individual, it should be paid for by a user tax representing full-cost pricing; if the benefits are not divisible, but rather reside with the society in general, the service should be financed through general tax levies. It follows that those programs from which the benefits are to both identifiable individuals and to the community at large, the method of finance is a mix of subsidy and user taxes. While the full implementation of this principle as a working guide for policy would require the accurate definition and comparative measurement of benefits - a hopeless task in most cases - it does capture the issue. There are a few economists and educators who support an extreme position on either end of this argument but most feel that the benefits of public higher education in this country have been both individual and societal. The preceding discussion suggests that the student and the public share the costs of public higher education, which of course they do. The more difficult question is whether the student's share should be increased or decreased, and by how much. There is considerable pressure these days for generally increasing the student's share, a position held by a good number of members of the Resource Group. It is argued that the benefits are predominantly to the individual in the form of increased earning

power, that low tuition is a windfall for the middle and upper classes and that those who can pay should pay. Those arguing for the student's paying a smaller portion maintain that the tradition of low cost public higher education has been to the general public's benefit, and that it provides for more democratic access to it. It is argued, conversely, that it would be to the public's detriment if increased prices slowed the absorption of education by the populace, reduced the chances for self improvement and upward mobility especially for those chronically disadvantaged, and increased the number of high school graduates entering the labor market. Another argument for low tuition is that is represents the way the middle-class pays for most things. That is, paying for education over time through general tax levies supports and reflects the concepts of insurance and time payments. The chances of being able to provide higher education for one's children are better and the financing is more manageable. While these arguments were not fully reconciled, the Resource Group has arrived at some general points of view or recommendations which attempt to take the best parts of each side of the above argument. They will be discussed briefly here and made as formal recommendations in the next section.

First, we recognize that it is extremely difficult to enumerate, define, and measure benefits. But we feel that a plausible argument can be made that the Community Colleges, Technical Colleges, and the lower division generally are the "front line" of open access and equal opportunity, and as such are the most appropriate vehicles to support publicly stated goals in these areas. This part of higher education, therefore, deserves the greatest public subsidy, or the lowest tuition. This is not to say that the Resource Group feels that there is no public benefit from upper-division or graduate instruction. Clearly, there are many benefits, and tuition should thus be far short of full-cost pricing. But by current standards

of society, there is increased likelihood that those people earning baccalaureate, professional and graduate degrees will enjoy increased earning power and a higher standard of living. Therefore, whether tuitions are generally high or low, they should be higher on this level than they are at the lower-division. Second, to the extent that the above recommendation increases tuition, these funds should be used to improve opportunity and equity, making our institutions more accessible than they are now. No tuition recommendation of the Group is intended to construct economic barriers for those of low income. Our third suggestion is primarily pragmatic. It is possible that increased tuition, or the mere announcement thereof, will affect enrollment. We know little about the nature of current demand for higher education, but we feel that it is likely to be very elastic, or price-reactive. Because of this uncertainty and desire not to get abruptly out of line with neighboring or similar states, we feel it wise to ease into any tuition change over a period of three years.

Recommendations for Tuition and Financial Aid

Prior to outlining our recommendations we make two observations:

1. While the costs of imposing or raising tuition are many the members of the group see three potential benefits:
   a. It raises revenue, if enrollments do not decrease markedly.
   b. It can improve equity and opportunity, if coupled with adequate financial assistance.
   c. It may ease the pressures on the private institutions.
2. If the 18 year majority ever allows students to disclaim parental income in the determination of need, tuition will become a "bad tax" in that it will not charge those intended to be charged. Connecticut would have two alternatives:

a. Eliminate tuition and finance higher education from a just general tax system.

b. Provide the financial resources needed to fund a tuition postponement option based upon post-education income.

Recommendations

We recommend that:

1. Tuition be graduated according to level of instruction. That is, tuition would be lowest at the Community Colleges, the Technical Colleges, and in the lower-division of the State Colleges and the University, and highest at the graduate level.
2. There be increased financial assistance for low and middle income students and that such assistance be funded from General Fund revenues.
3. Any change in tuition policy be phased into over a period of three years.

Alternative Tuition Possibilities

Below are six possible plans of tuition charges. One of the plans is that which currently exists, while the others compute tuition on the basis of instructional cost. The computations of instructional cost are shown in Appendix C. The Resource Group believes this is a useful approach but does not deny there are others. One variation that comes to mind immediately is to reduce the tuition computed for the Technical Colleges to that at the Community Colleges. The key ingredient, however, is that tuition be graduated according to level. The existing plan does not completely conform to this but is added for comparison.

ALTERNATIVE TUITION POSSIBILITIES

Alternative A — Tuition equals:

0 at lower division

30% of instuctional cost per student at upper division and graduate level.

Alternative B — Tuition equals:

10% of instructional cost per student at the lower division.

25% of instructional cost per student at the upper division and graduate levels.

Alternative C — Tuition equals:

20% of instructional cost per student at all levels.

Alternative D — Tuition equals current tuition charges:

$350 per year at the University.

$300 per year at the State Colleges.

$200 per year at the Community Colleges and Technical Colleges.

Alternative E — Tuition equals:

30% of instructional cost per student at all levels.

Alternative F — Tuition equals:

20% of instructional cost per student at the lower division.

50% of instructional cost per student at the upper division and graduate levels.

TABLE 9

SUMMARY OF ALTERNATIVE TUITION POSSIBILITIES*

	Alt. A (0%, 30%)	Alt. B (10%, 25%)	Alt. C (20%)	Alt. D (Current)	Alt. E (30%)	Alt. F (20%, 50%)
TUITION						
University						
Lower Division	$ 0	$ 129	$ 257	$ 350	$ 386	$ 257
Upper Division	519	432	346	350	519	865
Graduate	916	764	611	350	916	1,527
State Colleges						
Lower Division	0	113	227	300	340	227
Upper Division	480	400	320	300	480	800
Graduate	920	767	613	300	920	1,533
Technical Colleges	0	150	299	200	449	299
Community Colleges	0	92	183	200	305	204
GENERAL FUND SUMMARY						
Gross Appropriation	93,886,896	93,886,896	93,886,896	93,886,896	93,886,896	93,886,896
Less						
Tuition	12,770,728	14,588,292	16,402,798	16,512,493	23,946,987	29,167,605
Out-of-State Differential	2,472,500	2,472,500	2,472,500	2,472,500	2,472,500	2,472,500
Total	15,243,228	17,060,792	18,875,298	18,984,993	26,419,487	31,640,105
Net Appropriation	78,643,668	76,826,104	75,011,598	74,901,903	67,467,409	62,246,791
Estimate of Cost of University Graduate Assistant Tuition Waivers	625,892	544,268	462,107	321,950	625,892	953,998

*All computations are based upon budget and enrollment data in, *1973-74 Operating and Capital Budget Recommendations of the Commission for Higher Education for the Connecticut System of Higher Education.*

Table 9 shows the results of the calculations of the various alternative possibilities. It also shows the summary of the impact on the State General Fund. The Gross Appropriation is that estimated for the four units in 1972-73 excluding the University of Connecticut Health Center. Since tuition (shown on page 48) accrues to the General Fund and not the institutions, the net state contribution is less, and is called the Net Appropriation. The final item, University Graduate Assistant Tuition Waivers, deserves some comment. There are more than 600 graduate assistants at the University of Connecticut performing a significant amount of undergraduate teaching and other professional educational labor. The Resource Group feels that tuition should be waived for full-time graduate assistants and pro-rated for part-time graduate assistants. To fail to do this would reduce the stipends so that qualified service could not be procured. It would be less economical to recruit faculty members to perform this function, and it would deprive graduate students of valuable teaching and research experience.

Policy and Program Recommendations for Financial Assistance

The Resource Group has taken the liberty to describe our recommendations for financial aid programs in this section, rather than in the section on expenditures, because we see it as intimately tied to tuition policy. This section will contain three policy recommendations and two specific program recommendations.

Policy Recommendations

We recommend that:

1. The imposition or increase of tuition be coupled with adequate financial assistance so as to improve equity and opportunity, and such assistance be funded from state General Revenue.

2. To truly equalize opportunity, loans <u>not</u> be the principal component of an aid package; however, some self-help (work or loan) be a part of every aid package.
3. The award schedules of any program be tapered so that they do not end abruptly at a $12,000 family income.

While Recommendation I was made previously, we feel it bears mention in both sections. Recommendation 2 asserts a belief by nearly all the members of the Group that incurring a large debt to finance one's education is detrimental in two ways. First, it is a discouragement to low income people and, as such, is not a vehicle for equal opportunity. And second, existing loan programs put the repayment burden in the part of a person's life when his income is likely to be the lowest and when he or she is likely to be in the family formation stage. We do feel, however, that it is wise if all students, through work or a moderate amount of borrowing, contribute to the financing of their education. While we formulated no firm program recommendation, most members of the Group feel that Connecticut will need to develop some form of income contingent loan program.

Recommendation 3 represents our desire to avoid a weakness of so many programs of this sort. That weakness is having the payment brackets end too abruptly and failing to recognize the needs of many middle income students and their families. The enrollment at public institutions should be representative of entire populace and not only of the poor and the rich.

Financial Aid Program Recommendations.

1. It is recommended that a Scholar Incentive Grant Program be instituted and funded from General Fund revenues, and that all Connecticut residents attending institutions of higher education in Connecticut, public or private, be eligible.

Size of Grants. Awards should be tapered into perhaps twelve brackets but would average the following amounts.

Family Income	Grant
$ 0 - 4,999	$ 950
5,000 - 8,999	600
9,000 - 11,999	450
12,000 - 15,000	250

Cost of Program.

Family Income	Approximate Number of Students	x Grant	= Cost
$ 0 - 4,999	4,000	$ 950	$ 3,800,000
5,000 - 8,999	4,500	600	2,700,000
9,000 - 11,999	5,500	450	2,475,000
12,000 - 15,000	5,500	250	1,250,000
		TOTAL	$10,225,000

Examples of Student Aid Packages With Scholar Incentive Grants Assuming Tuition Alternative E and Attendance at the University of Connecticut

Student A

Family Income	$ 4000
Average Parental Responsibility	$ 0
Average Summer Earning	200
Average Family Responsibility	$ 200

Financial Need

Lower Division	$ 2285
Upper Division	2425
Graduate	2800

Available Support

	Lower Division	*Upper Division*	*Graduate*
Basic Opportunity Grants	$ 500	$ 500	$ 500
Educational Opportunity Grant/Work Study	800	900	-
National Direct Student Loan/Connecticut Student Loan	135	175	1450

Proposed Support

Scholar Incentive	850	850	850

Student B

Family Income $ 7500

Average	Parental Responsibility	$ 200
Average	Summer Earning	300
Average	Family Responsibility	$ 500

Financial Need

Lower Division	$ 1985
Upper Division	2125
Graduate	2500

Available Support

	Lower Division	*Upper Division*	*Graduate*
Basic Opportunity Grant	$ 350	$ 350	$ 350
Educational Opportunity Grant/Work Study	800	900	-
National Direct Student Loan/Connecticut Student Loan	335	375	1650

Proposed Support

Scholar Incentive	500	500	500

The group discussed its preliminary findings and recommendations with executive officers of the four public units of higher education in the state. Each requested that part of the funds for this program be

administered by the institutions. This could be done by an allotment of funds or by tuition remission. The Group agrees that this has merit, and may in fact be required for effective administration of the program, but any arrangement should contain the following ingredients:

a. As the name implies, it should be an incentive to pursue higher education for anyone who desires it and who is qualified or qualifiable.

b. It should not be restricted to those attending public institutions.

c. It should be tied to family income and added to existing aid programs, but in no case should an award or arrangement of awards be in excess of a student's need.

2. The existing State Scholarship Program be expanded so as to award annually a number of scholarships equal to 10% of the number of high school graduates each year.

Cost of the Program

The number of awards would have to increase from 1600 to approximately 5000, requiring a budget increase from 1.3 to 4.5 million dollars. However, depending upon funding of the 1972 Amendments, it is possible that half of this increase will be provided by the federal government.

3. An Independent Student Financial Aid Commission be established to replace the existing State Scholarship Commission, to coordinate state efforts with the Student Aid Provisions of the federal Higher Education Amendments, 1972, and to develop with the

institutions of higher education in the state uniform guidelines for the determination of student financial need.

In conclusion, it should be clear that in the minds of the members these programs are inextricably linked to a program of tuition charges, and that such charges provide more money into the General Fund than is required to support them.

III. CAPITAL BUDGETS

III. Capital Budgets

The Resource Group was not able to develop a section on capital budgets similar to that on operating budgets, as it had intended. The lack of appropriately categorized capital spending data is the first problem. In no state office were we able to get capital spending figures for higher education. The Connecticut Public Expenditures Council has devoted considerable efforts to the assembling of such information, but their series is only through 1967. Second, the separation of capital and operating budget calendars in the state, and the basic unconnectedness of legislative authorization and actual fund allotment, make this a very different problem from that of operating budgets. The experience of recent years is illustrative. In 1969 the Connecticut General Assembly authorized, for all state agencies, some $800 million in capital funds, an amount nearly equal to a year's total governmental revenue at that time, only to be followed by an executive freeze of nearly all capital projects. For higher education alone, as of July, 1972, there existed more than $80 million for general obligation bonds authorized but unallocated.

Capital spending in most cases means building. With the peak of the recent enrollment boom appearing to be nearly at hand--and considering space available at both public and private institutions--it is our assessment that the existing plant is as extensive as it needs to be for most programs for several years. There is need, however, for certain kinds of space, for qualitative improvement, for upgraded facilities, for new facilities where unsatisfactory leasing arrangements now exist, and for facilities which will combine operations which are now separate, and thus

promote economy. For example, replacing an unsatisfactory Community College lease with capital construction is not seen as making the plant more extensive.

The Resource Group feels that it would be to the benefit of the general public, the government, and the higher education community if all parts of the capital budgeting process--planning, legislative authorization, project approval, and actual fund allotment--be allowed to proceed on a reasonably continuous basis, with regular review, and not in the "fits and starts" fashion of recent years. We therefore enthusiastically make the following recommendations:

1. That a time plan be devised and approved in the current year to allow capital spending to proceed on a scheduled, continuous basis for those projects already planned and which the institutions can justify to be the most essential.
2. That at this time lowest priority be given to those capital proposals whose principal effect is to make the system of higher education more extensive, and whose existence must be justified primarily on projections of significant, system-wide enrollment increases.

Tables 10 and 11 are added for informational purposes.

TABLE 10

BOND AUTHORIZATIONS FOR CAPITAL PROJECTS IN HIGHER EDUCATION

BY CONSTITUENT UNITS, 1963-65 to 1972-73

(thousands of dollars)

		Biennial				Annual	
		1963-65	1965-67	1967-69	1969-71	1971-72	1972-73
Regional Community Colleges	Gen. Obl.	--	1,500	12,500	8,000	--	5,000
	Revenue	--	--	--	--	--	--
Technical Colleges	Gen. Obl.	--	3,050	6,730	9,150	--	--
	Revenue	--	--	--	--	--	--
State Colleges	Gen. Obl.	6,463	15,695	25,426	26,486	7,745	4,200
	Revenue	2,675	12,993	22,350	4,660	--	2,200
U CONN (excl. Hlth. Ctr.)	Gen. Obl.	4,875	13,338	27,800	22,615	4,000	1,740
	Revenue	4,865	8,000	17,350	14,900	--	--
Health Center	Gen. Obl.	7,000	15,000	18,550	2,910	250	2,200
	Revenue	--	--	2,000	560	--	--
Commission for Higher Education	Gen. Obl.	--	--	--	6,750*	1,500*	1,000*
	Revenue	--	--	--	--	--	--
TOTAL	Gen. Obl.	18,338	48,583	91,006	75,876	13,495	14,140
	Revenue	7,540	20,993	41,700	20,120	--	2,200

*Includes Central Naugatuck Valley Higher Education Center

TABLE 11

STATUS OF CAPITAL AUTHORIZATIONS FOR HIGHER EDUCATION FROM 1963

BY CONSTITUENT UNIT, AS OF 7/28/72

(thousands of dollars)

		Authorized	Unallocated	Allocated	Unallotted	Allotted
Regional Community Colleges	Gen. Obl.	27,230	4,050	23,180	3,581	19,599
	Revenue	--	--	--	--	--
Technical Colleges	Gen. Obl.	20,575	14,014	6,561	767	5,784
	Revenue	--	--	--	--	--
State Colleges	Gen. Obl.	98,713	35,969	62,744	2,022	60,722
	Revenue	45,246	8,947	36,299	2,642	33,657
UConn (excluding Health Center)	Gen. Obl.	85,919	15,163	70,756	6,928	63,827
	Revenue	43,615	19,922	23,693	769	22,924
Health Center	Gen. Obl.	63,784	5,288	58,496	68	58,429
	Revenue	2,560	2,360	200	--	200
Commission for Higher Education *	Gen. Obl.	9,670	7,342	2,328	421	1,907
	Revenue	--	--	--	--	--
TOTAL	Gen. Obl.	304,891	81,826	224,065	13,787	210,268
	Revenue	91,421	31,229	60,192	3,411	56,781

* Includes Central Naugatuck Valley Higher Education Center

IV. BUDGETARY PROCEDURES AND EXPENDITURE CONTROLS

IV. Budgetary Procedures and Expenditure Controls

The two topics of this section's title can be discussed separately for expository purposes but are intimately tied in two ways. First, budgetary procedures represent one of the constituent units' principal connections with the state government and the Commission for Higher Education in the allocation of General Fund appropriations. And second, expenditure controls should be the means for monitoring the extent to which a unit's spending reflects the priorities or patterns set forth in the budgeting procedures.

The Resource Group realized rather quickly that it would not be able to construct a complete alternative set of allocation standards and procedures. Such an effort requires extensive research and the continuous involvement of budget officers of the constituent units, the Commission, and the state government. However, we will offer findings and recommendations which will hopefully provide the foundation for development of improved procedures and controls in the current Master Plan and in the subsequent biennial revisions of that Plan.

Findings:

1. The existing calendar for preparing and adopting operating budgets is unsatisfactory in that it thwarts rather than promotes responsive, flexible and efficient institutional decision-making. There are three principal causes:

   a. The shift from biennial to annual legislative sessions with no apparent measures to accelerate budget approval.

   b. The requirements for repeated and unnecessarily duplicative submission of budget requests.

c. The lack of preliminary commitment of a portion of anticipated budget dollars to allow institutions to hire qualified faculty at optimum times of the year.

2. The current policies of pre-audit controls of institutional spending by the Department of Finance and Control interfere with educational decisions and prevent the continuing improvement of management competence at the institutional level. We see two reasons:

a. A different conception by the present state administration from previous administrations regarding the traditional role of public institutions with boards of trustees vis a vis other state agencies.

b. The lack of management information indices on which to assess and evaluate the spending of institutions of higher education.

3. While the Commission for Higher Education uses a formula to distribute its budget request among the constituent units (known as the SCHLDE technique, described briefly below and in detail in Appendix D), the current gubernatorial requests based solely on percentage increments of the previous year reduce the formula and its targets to mere ex post indices.

4. While the SCHLDE formula is a useful tool by which to allocate funds among various units, and levels within units, the targets are not sufficiently sensitive to program cost differences.

With regard to Finding 1, our discussions with officers of the four constituent units revealed to the Resource Group that there is a distinct awareness of the need for economy in operation and a genuine desire to improve the ability of institutions to respond to that need. However, the current budget preparation calendar fosters uncertainty and frustrates

efforts of flexibility and optimum resource use. An illustrative case is that of faculty hiring. Connecticut public institutions, especially since the advent of annual sessions of the General Assembly, are not able to participate fully in the academic labor market, which is at its height in December and January, when they have no commitment of funds until late spring or early summer for the academic year beginning in September. An institution's president must then either authorize commitments without approval or settle for less qualified people at later times of the year. While it is understood that the general Assembly's Finance and Appropriations Committee's reports are traditionally made at the end of the session, a preliminary commitment of a portion of anticipated funds could be made in the interests of promoting institutional flexibility.

Finding 2 refers to centralized control of daily institutional decisions, such as whether a secretary can be hired to replace one who suddenly leaves, whether a staff member can be authorized to travel to a professional meeting, or even whether lunch can be provided to participants of an institutionally related meeting. It does not suggest that institutions need not be accountable for public monies, but rather that such accountability should be post-audit. The principal difficulty with the current centralized controls is that they inhibit institutional flexibility. In the 1960's the growth of budgets itself provided a certain inherent degree of flexibility, which does not exist in current stand-still budgets. Yet it is in times of austerity when flexibility is most needed. In the Carnegie Commission's recent publication, The More Effective Use of Resources: An Imperative for Higher Education, the chapter on budget policy is entitled "Achieving Budgetary Flexibility", and its key recommendation is:

> The Commission recommends that all institutions of higher education place emphasis on policies that will ensure budgetary flexibility..." (p. 103)

Every specific recommendation of the chapter is built upon flexibility.

We also cite the 1971 report of the Federal Technical Assistance Program, better known as the "flying feds," Strengthening Management and Budget Functions in the Connecticut State Government.

> "The University of Connecticut should be provided general budget guidance by the Governor but otherwise should be accorded administrative flexibility in day-to-day operations..."

We support this recommendation and believe it should be expanded to all units. We also believe that the current development of a management information system should proceed as rapidly as possible so as to improve the chances of mutual understanding of institutional needs.

Findings 3 and 4 involve the method the Commission for Higher Education uses in its budget recommendation in order to adjudicate the claims of competing institutions. The principal unit of that method is the SCHLDE-student contact hour lower division equivalent. This technique builds into the budget preparation the idea that more faculty teaching hours are required to provide a given number of student contact hours as the level of instruction increases. For example, if one full-time teacher can offer 300 student contact hours of instruction per week at the lower division, it takes 1.667 full-time teachers to do the same at the upper division level. The weights are correspondingly higher at the graduate level. Thus an institution's budget needs depend, among other things, upon the number of students enrolled at each level.

While this concept is still broadly responsible for the distribution of funds among units, the actual aggregate budget recommendations of the Governor of recent years are purely incremental, based upon a percentage increase from the previous year, and ignore the Commission's target of

300 SCHLDE per full-time faculty member. It is estimated that in 1973-74 all units will be operating at over 400 SCHLDE per faculty member.

Additionally, several members of the Resource Group believe that budget recommendations should consider not only enrollment characteristics of an institution but the cost of programs at that institution. For example, the Community Colleges and Technical Colleges are considered "lower division" but are involved in occupational programs which are inherently more costly than most lower-division general education offerings. The SCHDLE technique is fully capable of being adapted for such use, but at present does not differentiate among programs in the assignment of weights.

The Resource Group offers the following recommendations:

1. That public institutions of higher education be allowed to make employment commitments, without prior approval for a portion of the new positions included in the Commission for Higher Education budget recommendations for the subsequent fiscal year so that they may participate in professional labor market at optimal times of the year.
2. That the Governor provide broad spending guidelines to the constituent units of public higher education, to be monitored and controlled by the boards of trustees and the administrative officers of each unit, and that existing pre-audit controls of day-to-day institutional decisions by the Department of Finance and Control be discontinued.
3. That in order to improve budget planning and accountability, and to enhance mutual understanding of institutional decision making,

the development of a management information system proceed as rapidly as possible, and that the resources necessary for its development be provided as an appropriation to the Commission for Higher Education.

4. That the procedures and formulas for allocation of funds among constituent units be modified to include program cost differences and the need for support personnel.

V. THE INDEPENDENT INSTITUTIONS

V. The Independent Institutions

The independent colleges and universities in Connecticut comprise one of the state's principal resources and are major part of its educational history and tradition. It was only as recent as 1966 that enrollment in public institutions surpassed that in independent institutions. The members of the Resource Group believe that they bring a valuable dimension of pluralism to the higher education community in Connecticut and that this should be preserved.

The early deliberations of the Group on this topic reflected two generally held preconceptions, namely, that enrollment in all sectors would increase until 1978-79 and decline slightly thereafter, and that there was general excess capacity in the private college sector. This led to the preliminary development of a position that the state provide the necessary funding to enable the independent colleges to absorb this peak rather than to expand the capacity of the public system. While there is little doubt of the validity of such a program, accepting the premises of growth and excess capacity, the problem appears to have become somewhat academic. First, it seems from all signs that total enrollment may already have leveled off, and second, while there are pockets of severe enrollment shortfalls in the private sector, most institutions are at capacity or very near it. In addition to the fact that the temporary enrollment crisis is not materializing, there have been two laws passed in recent sessions of the General Assembly which also reduced the need for the Resource Group to offer specific program recommendations.

Special Act 53. This legislation is designed to provide financial assistance to Connecticut independent institutions based upon the number of full-time undergraduate Connecticut residents they enroll. Eighty percent of

the funds are to be used for student financial assistance while 20% is unrestricted. The Act was funded in 1972-73 with approximately $1.1 million.

Public Act 140. This legislation authorizes the Commission for Higher Education to enter into contracts with independent colleges in Connecticut for programs, services, and facilities "mutually beneficial to the citizens of the state and the independent colleges." While the act was not expected to be funded in 1972-73, it is likely that it will be funded in 1973-74.

We therefore summarize our findings and recommendation as follows:

Findings:

1. There is neither significant overall enrollment expansion anticipated, nor widespread excess capacity in the private sector to call for major new programs to channel students into independent colleges and universities.
2. Special Act 53 and Public Act 140 have the potential to provide the funding necessary for public access to the resources of the independent institutions, and no other programs are needed at this time.

Recommendation:

It is recommended that pilot contracts under Public Act 140 be funded and commenced as scon as possible in order to create the knowledge, flexibility, and preparedness needed to utilize the resources of the independent institutions whenever the long run interests of state can be better served by so doing.

VI. APPENDICES

APPENDIX A

INTERSTATE COMPARISONS

Ideally the most meaningful ratios would be to show both general fund appropriations and aggregate institutional expenditures per capita, per student, and per $1000 of personal income. The purpose of each is sketched as follows.

General Fund Appropriation vs Aggregate Institutional Spending for Current Operations

While the aggregate expenditure figures more clearly represent the actual cost of institutional operation, the appropriation figures show the extent to which the people of the state through general tax levies bear the burden of the educational cost.

Per Capita. This is a standard measure to compare the educational operation of states of different size with regard to the degree to which the aggregate dollar support actually serves the populace.

Per FTE Student. This figure is often used as a rough measure of quality of educational program for the students who are enrolled, but makes no indication of what portion of the population is being served. FTE (Full-time equivalent) students are usually counted by adding the total number of full-time students plus 40% of the part-time students.

Per $1000 of Personal Income. Some states are blessed with prosperity more than others. This measurement, especially when it refers to general appropriations, is an indicator of tax effort based upon ability to pay. It is usually lower for states with a considerable number of independent institutions.

While there is fairly complete data on expenditures, information regarding the sources of revenue, -- the largest being governmental general

appropriations, -- have many severe limitations. The most complete data can be found in Financial Statistics of Institutions of Higher Education, published by the Office of Education of the Department of Health, Education and Welfare, but it is often too dated to be useful. At the writing of this report the most recent was for the year 1967-68. An often cited yearly summary of state government appropriations for higher education is that of Chambers in the publication Grapevine. These figures have decided limitations when used for comparative purposes.

The important limitations are:

1. They do not include the support of local governments for higher education. Such support exists in more than half of the states and is a major part of the support in several.
2. They include costly appropriations for such things as educationally affiliated hospitals and agricultural extension programs in some states and not others.
3. They do not account for differences in the collection of tuition. In some states tuition is kept by the collecting institution and thus is not appropriated, while in others (Connecticut being one) the tuition is paid to the general fund of the state government, thus making the official appropriation higher than the net state contribution.

To the knowledge of the Resource Group members and other people consulted, there does not exist a current set of data without these limitations. The making of accurate state-by-state comparisons will probably have to await speedier production of the previously cited reports of the Office of Education of the Department of Health, Education, and Welfare.

We have, however, reproduced in Tables A-1, A-2, and A-3 data appearing in recent issues of two respected and widely-read publications, The Chronicle of Higher Education and The Journal of Higher Education. While, again, precision is not to be gained from these tables, some general directions are suggested.

Regardless of whether Connecticut's rank is really 35 or 45, or whether we spend more or less than a particular state, it seems a fair conclusion a distinct majority of states spend more on public higher education than does Connecticut, whatever index is used.

The governmental spending level for public higher education or any other state service in Connecticut has never been, nor do we recommend that it ever be, one of extravagance. We respect a tradition of frugality. We also recognize that the long history of private higher education in the state has and will continue to temper the need for public facilities. However, we assert that there is room for improvement relative to other states, and that such improvement would only be in the best interests of our future with no damage to our tradition.

TABLE A-1

EXPENDITURES FOR CURRENT OPERATIONS OF STATE AND LOCAL PUBLIC INSTITUTIONS OF HIGHER EDUCATION PER CAPITA, PER PERSON OF COLLEGE AGE, AND PER $1,000 PERSONAL INCOME FISCAL 1970*

	Total (000's)	Per Capita		Per Person of College Age		Per $1000 of Personal Income	
		Amount	Rank	Amount	Rank	Amount	Rank
U. S. Average	$8,605,378	$42.51		$364.82		$11.62	
Alabama	134,403	39.03	31	333.73	30	14.74	20
Alaska	24,572	81.36	3	539.84	10	19.53	10
Arizona	120,159	67.81	9	568.18	6	21.05	7
Arkansas	57,434	29.87	45	271.80	44	11.57	32
California	1,125,430	5[illegible].40	16	459.95	17	13.49	24
Colorado	163,399	74.04	7	559.27	7	21.59	5
Connecticut	76,279	25.16	47	233.75	47	5.53	48
Delaware	28,435	51.89	18	448.52	19	12.82	28
Florida	240,978	35.50	39	337.04	29	10.76	38
Georgia	160,453	34.96	40	272.81	42	11.26	36
Hawaii	67,484	87.64	2	617.83	5	22.05	4
Idaho	28,004	39.28	29	348.04	27	13.21	27
Illinois	483,061	43.46	24	392.95	23	10.20	42
Indiana	286,026	55.07	17	471.00	15	15.16	19
Iowa	136,279	48.24	20	441.06	20	13.81	22
Kansas	127,635	56.75	15	465.38	16	15.76	16
Kentucky	133,590	41.50	26	340.74	28	14.52	21
Louisiana	124,824	34.26	42	281.15	41	11.99	31
Maine	34,352	34.56	41	310.81	37	11.50	33
Maryland	148,419	37.84	33	323.37	36	9.68	44
Massachusetts	113,586	19.97	49	169.27	50	5.00	50
Michigan	541,275	60.99	12	524.72	11	15.46	17
Minnesota	215,962	56.76	14	498.32	14	16.06	15
Mississippi	86,852	39.18	30	331.07	31	16.59	14
Missouri	172,501	36.88	36	330.52	32	10.72	39
Montana	33,008	47.56	21	430.50	21	15.20	18
Nebraska	65,009	43.81	23	380.64	24	12.43	29
Nevada	22,307	45.62	22	419.57	22	10.95	37
New Hampshire	30,551	41.40	27	355.86	25	12.27	30
New Jersey	174,957	24.41	48	240.17	46	5.77	47
New Mexico	82,258	80.96	4	683.56	1	28.57	2
New York	646,563	35.54	38	326.67	33	7.95	46
North Carolina	202,287	39.81	28	298.68	39	13.46	25
North Dakota	36,599	59.22	13	500.82	13	19.76	8
Ohio	395,010	37.08	35	325.12	35	9.84	43
Oklahoma	106,874	41.76	25	354.88	26	13.66	23
Oregon	132,507	63.37	10	556.74	8	18.25	11
Pennsylvania	233,666	19.81	50	185.86	49	5.41	49
Rhode Island	36,459	38.38	32	294.47	40	10.37	40
South Carolina	72,086	27.82	46	205.01	48	10.27	41
South Dakota	34,169	51.31	19	454.90	18	17.13	13
Tennessee	128,130	32.65	43	272.46	43	11.45	34
Texas	416,626	37.21	34	301.81	38	11.43	35
Utah	94,411	89.15	1	659.46	3	30.14	1
Vermont	28,117	63.18	11	512.57	12	19.72	9
Virginia	148,995	32.06	44	242.30	45	9.65	45
Washington	235,844	69.18	8	556.47	9	18.01	12
West Virginia	63,323	36.31	37	325.29	34	13.37	26
Wisconsin	329,267	74.53	6	653.05	4	21.41	6
Wyoming	24,963	75.19	5	678.23	2	23.26	3

TABLE A-2

EXPENDITURES FOR CURRENT OPERATIONS OF STATE AND LOCAL PUBLIC INSTITUTIONS OF HIGHER EDUCATION PER FULL-TIME EQUIVALENT STUDENT, FISCAL YEAR 1970*

	FTE Students	State Only		State and Local Combined	
		Amount	Rank	Amount	Rank
U. S. Average	4,535,669	$1,606		$1,897	
Alaska	3,832	6,412	1	6,412	1
Vermont	10,152	2,770	2	2,770	2
Indiana	106,256	2,680	3	2,692	3
New Mexico	31,332	2,625	4	2,625	4
Hawaii	26,044	2,591	5	2,591	5
Wisconsin	132,504	2,036	16	2,485	6
New Hampshire	12,673	2,411	6	2,411	7
Nevada	9,314	2,395	7	2,395	8
Utah	40,877	2,310	8	2,310	9
Iowa	59,830	2,151	11	2,278	10
New York	286,016	1,336	45	2,261	11
Rhode Island	16,164	2,256	9	2,255	12
Michigan	242,009	1,928	18	2,237	13
Illinois	216,400	1,704	26	2,232	14
Wyoming	11,502	1,851	21	2,170	15
North Carolina	93,583	1,809	23	2,161	16
Maine	15,953	2,153	10	2,153	17
Delaware	13,493	2,107	12	2,107	18
New Jersey	83,358	1,821	22	2,099	19
Washington	112,377	2,099	13	2,099	20
Georgia	76,658	2,062	14	2,093	21
Kentucky	63,858	1,719	25	2,092	22
Minnesota	104,689	2,052	15	2,063	23
Colorado	80,233	1,897	20	2,037	24
South Carolina	36,175	1,993	17	1,993	25
Alabama	70,434	1,908	19	1,908	26
Ohio	210,513	1,544	30	1,876	27
Maryland	81,148	1,517	34	1,829	28
Oregon	73,167	1,619	29	1,811	29
Virginia	83,377	1,787	24	1,787	30
Kansas	72,364	1,541	31	1,764	31
Arizona	68,728	1,428	40	1,748	32
Florida	138,259	1,253	47	1,743	33
Missouri	100,529	1,477	37	1,716	34
Tennessee	76,494	1,675	27	1,675	35
California	677,533	1,131	50	1,661	36
South Dakota	20,824	1,641	28	1,641	37
Mississippi	54,074	1,172	49	1,606	38
Nebraska	41,242	1,531	32	1,576	39
Texas	270,896	1,363	42	1,538	40
Connecticut	50,071	1,523	33	1,523	41
West Virginia	41,949	1,510	35	1,509	42
Louisiana	82,782	1,480	36	1,508	43
Arkansas	39,111	1,468	38	1,468	44
Massachusetts	77,573	1,451	39	1,464	45
Idaho	19,440	1,353	43	1,441	46
North Dakota	26,116	1,348	44	1,401	47
Montana	23,667	1,326	46	1,395	48
Oklahoma	76,813	1,389	41	1,391	49
Pennsylvania	173,283	1,236	48	1,348	50

*Source: Edric A. Weld, Jr., Expenditures for Public Institutions of Higher Education, 1969-70, *Journal of Higher Education*, Volume XLIII, No. 6, June, 1972.

TABLE A-3

STATE APPROPRIATIONS FOR OPERATING EXPENSES
OF PUBLIC INSTITUTIONS OF HIGHER EDUCATION
PER CAPITA 1971-72*

	Approp. per Capita	Rank		Approp. per Capita	Rank		Approp. per Capita	Rank
Alabama	$30.87	41	Louisiana	$33.45	23	Ohio	$27.30	46
Alaska	63.42	2	Maine	30.99	40	Oklahoma	30.80	42
Arizona	53.61	5	Maryland	36.05	31	Oregon	47.77	8
Arkansas	26.96	47	Massachusetts	22.72	49	Pennsylvania	29.29	44
California	42.93	16	Michigan	42.25	13	Rhode Island	32.88	38
Colorado	50.65	6	Minnesota	42.45	17	So. Carolina	29.41	43
Connecticut	36.43	30	Mississippi	33.13	25	South Dakota	32.90	37
Delaware	41.83	21	Missouri	31.65	39	Tennessee	28.75	45
Florida	35.65	32	Montana	43.58	15	Texas	37.05	29
Georgia	35.51	33	Nebraska	34.65	34	Utah	46.05	10
Hawaii	81.12	1	Nevada	37.51	27	Vermont	34.62	35
Idaho	46.93	9	New Hampshire	17.06	50	Virginia	33.80	36
Illinois	42.18	19	New Jersey	25.50	48	Washington	56.28	3
Indiana	38.22	24	New Mexico	44.73	11	West Virginia	39.61	22
Iowa	42.05	20	New York	43.76	14	Wisconsin	50.59	7
Kansas	37.94	26	No. Carolina	44.29	12	Wyoming	54.36	4
Kentucky	37.21	23	North Dakota	44.12	13	TOTAL	$37.85	--

The table above shows how much of its tax funds each state is spending, per capita, for the operating expenses of higher education in 1971-72. The information was compiled by The Chronicle from figures supplied by M. M. Chambers of Illinois State University and from the U. S. Bureau of the Census's estimate of civilian population as of July 1, 1972.

*Chronicle of Higher Education, January 3, 1972.

APPENDIX B

Estimated Addition of the University of Connecticut Health Center and the Commission for Higher Education Budgets to Projections of Table 2

1. Health Center. The estimated spending data are added as submitted by Health Center authorities in January, 1973.

2. Commission for Higher Education. The estimated spending data are computed as 4% of the total of the four units and the Health Center.

Low Estimate	Four Units *	Health Center	CHE	Total
1973-74	$ 96,590,658	18,488,000	4,603,146	119,681,804
1974-75	101,666,947	19,358,425	4,841,015	125,866,457
1975-76	106,545,410	18,929,395	5,018,992	130,493,797
1976-77	111,869,337	19,957,285	5,273,065	137,099,687
1977-78	117,528,961	20,986,355	5,540,613	144,055,929
1978-79	123,612,372	22,069,215	5,827,263	151,508,850

High Estimate	Four Units *	Health Center	CHE	Total
1973-74	$ 96,590,658	18,488,000	4,603,146	119,681,804
1974-75	104,952,150	19,358,425	4,972,423	129,282,999
1975-76	115,017,104	18,929,395	5,357,860	140,304,359
1976-77	127,057,739	19,957,285	5,880,601	152,895,625
1977-78	138,416,628	20,986,355	6,376,119	165,779,102
1978-79	152,177,964	22,069,215	6,969,887	181,217,066

* From Table 1, pp

APPENDIX C

Computation of Instructional Cost per FTE Student

For those tuition proposals based upon the state general fund cost per student for instruction it is necessary to compute that cost for each constituent unit and at each level (lower division, upper division, graduate). This involves two steps:

First, it is necessary to exclude from the total appropriation that which is not for instruction. To do this for the University, for example, one must deduct those amounts specifically appropriated for organized research, public service, and a proportionate amount of that for the library, the operation and maintenance of the physical plant, and general administration. Also deducted is the University contribution for financial aid.

Second, this adjusted budget is divided by FTE students in the State Technical Colleges and Community Colleges, and apportioned to levels by the SCHLDE technique at the State Colleges and the University.

A. The University of Connecticut

			SCH	SCHLDE
Appropriation	$43,450,861	LD	148,810	148,810
Less Non-instructional Expenditures	8,220,443	UD	115,518	192,569
		G	45,273	175,065
Total Instructional Cost	35,230,418	Tot	309,601	516,444

Cost per SCHLDE = $35,230,418 ÷ 516,444 = $68.21

	(1) SCHLDE	(2) Cost/SCHLDE	(3) (1) x (2)	(4) FTE Enr.	(5) Instr. Cost/FTE (3) ÷ (4)
LD	148,810	$ 68.21	$10,150,330	7,900	$1,285
UD	192,569	68.21	13,135,131	7,595	1,729
G	175,065	68.21	11,941,184	3,910	3,054

B. The State Colleges

			SCH	SCHLDE
Appropriation	$29,203,220	LD	181,710	181,710
Less Non-instructional Expenditures	614,763	UD	151,806	253,061
		G	9,405	31,347
Total Instructional Cost	28,588,457	Tot	342,921	466,118

Cost Per SCHLDE = $28,588,457 ÷ 466,118 = $61.33

	(1) SCHLDE	(2) Cost/SCHLDE	(3) (1) x (2)	(4) FTE Enr.	(5) Instr. Cost/FTE (3) ÷ (4)
LD	181,710	$ 61.33	$11,144,274	9,827	$1,134
UD	253,061	61.33	15,520,231	9,701	1,599
G	31,347	61.33	1,922,512	627	3,066

C. The State Technical Colleges

Appropriation	$4,453,158
Less Non-instructional Expenditures	713,582
Total Instructional Cost	3,739,576

Instructional Cost per FTE = $3,739,576 ÷ 2,500 = $1,496

D. The Regional Community Colleges

The appropriation to the Regional Community Colleges includes lease costs as explained in section I.B. of this report. This must be excluded in the computation of instructional cost. The method was to multiply the 1972-73 cost per student excluding lease costs (as listed in the CHE budget document) times the number of FTE students. From that, non-instructional expenditures were subtracted.

Appropriation Minus Lease Costs	$15,173,760
Less Non-instructional Expenditures	683,480
Total Instructional Cost	14,490,292

Instructional Cost per FTE = $14,490,292 ÷ 15,806 = $917

APPENDIX D

The SCHLDE Technique

THE WEIGHTING SYSTEM USED FOR COMPUTING REQUIREMENTS FOR FACULTY POSITIONS

In 1967 the Connecticut Commission for Higher Education introduced a system of weighting student contact hours by level of instruction, in order to relate requirements for faculty positions more precisely to the varying missions of different constituent institutions than would be possible using simple enrollment counts. The weighting system takes lower division (freshman-sophomore) instruction as the basis of calculation, and then converts upper division (junior-senior), terminal Master's, and mixed Master's and Doctoral work student contact hours (SCH) into student-contact-hour-lower-division equivalents.

The precise derivation of the weights, in the form authorized by the Commission, is shown in the attached table. This table assumes that the average lower division class will have 25 students, and that a full-time teaching load at this level will involve 12 teacher contact hours per week. The number of student contact hours defining a full-time teaching load at this level will thus be 25 x 12, or 300.

Progressively smaller sized classes and teaching loads are assumed for the more complex and specialized work at the higher levels of instruction, producing the SCH per instructor for each level shown in column 3. Each of the figures in column 3 is then divided into 300, the lower division standard, in order to determine how many faculty would be required at each of these higher levels, to teach 300 student contact hours per week. The resulting weights are shown in column 4.

The institution then determines its faculty requirements by counting or estimating the total number of student contact hours at each level, and multiplying the number at each level by the appropriate weighting factor from column 4, adding the resulting student-contact-hour-lower-division-equivalents (SCHLDE), and dividing the sum by 300, or by whatever standard is set.

In the budgeting process, Connecticut institutions have, in the past, used the target of 300 SCHLDE per position as the uniform budgetary goal. This target has then been adjusted by the Budget Division to a level considered more nearly consistent with budgeting realities. In the Fall of 1970, for instance, the University of Connecticut actually experienced 353 SCHLDE per authorized faculty position.

In the absence of new positions for the Fall of 1971, and given expected enrollments, the ratio for 1971-72 is expected to be about 371 SCHLDE per authorized position.

If no new positions are granted for 1972-73, and enrollments continue to rise as expected, the ratio will rise to about 393 SCHLDE per position, indicating an 11.3 percent decline in standards in terms of class size and teaching loads over the two years.

It must be understood that the standard ratios apply to the entire institution at the highest level of aggregation. They will, and indeed, should, vary among individual programs, depending on such factors as the pedagogical problems of the discipline, and demand for individual courses.

The SCHLDE concept has proved extraordinarily useful in providing indices of shifting quality standards. In the budget review process its

great advantage is its extreme sensitivity to differences among institutions in enrollment mix among levels of instruction, and to changes in enrollment mix within a given institution.

Table 1. Weighting system used by Connecticut Commission for Higher Education to assess requirements for teaching faculty in constituent institutions.

Level of instruction involved	Students per class (SCH/TCH) (1)	x	Class hours per faculty member (TCH/FTTE) (2)	=	SCH per instructor (SCH/FTTE) (3)	SCHLDE/SCH = Instructors (FTTE) per 300 SCH a/ (4)
Regular Courses						
Lower Division	25	x	12	=	300	1
Upper Division	20	x	9	=	180	1.667
Terminal master's and first professional	15	x	6	=	90	3.333
Master's and Doctorate combined	12.5	x	6	=	75	4
Doctorate only	10	x	6	=	60	5
Independent study (undergraduate and graduate)						
25 enrollments x 3 assumed contact hour equivalents = 75 (simulated)						4
Thesis and dissertation supervision						
25 enrollments x 3 assumed contact hour equivalents = 75 (simulated)						4

a/ Weighting factor for differentiating among levels of instruction. SCHLDE is a student contact hour lower division equivalent. It shows the number of instructors required per 300 SCH at each level of instruction.

$$N = FTTE \frac{\left(\frac{SCH}{TCH}\right)\left(\frac{TCH}{FTTE}\right)}{\left(\frac{SCH}{N}\right)}$$

	1970	Reduce $\frac{SCH}{N}$ by 1	Difference	Increase $\frac{SCH}{TCH}$ by 1	Difference	Increase $\frac{TCH}{FTTE}$ by 1	Difference	Inc. $\frac{SCH}{TCH}$ & $\frac{TCH}{FTTE}$ by 1 reduce $\frac{SCH}{N}$ by 1	Difference
N	20,242	20,242		20,242		20,242		20,242	
FTTE	1,218.44	1,137.42	81.02	1,177.70	40.74	1,106.24	122.20	987.19	231.25
$\frac{SCH}{TCH}$	24.8	24.8		25.8		24.8		25.8	
$\frac{TCH}{FTTE}$	9.3	9.3		9.3		10.3		10.3	
$\frac{SCH}{N}$	13.96	12.96		13.96		13.96		12.96	
		Reduced student load		Increased class size		Increased teaching hours		Inc. class size, teaching load, reduce student load	

Independent Study etc. excluded

N = Roster enrollments

FTTE = Full-time teaching equivalent

$\frac{SCH}{TCH}$ = Average class size

$\frac{TCH}{FTTE}$ = Average teaching load

$\frac{SCH}{N}$ = Average student load in contact hours

SPECIFIC QUESTIONS AND ANSWERS

a. What are the projected educational costs for five years, assuming no change in the delivery system?

Assuming that each unit (excluding the Health Center of the University) requires the same per FTE student support in dollars of constant purchasing power (i.e. building in 4 percent inflation per year) the low and high estimates of future general fund spending are listed below.

Low Estimate	High Estimate
$ 96,590,658	$ 96,590,658
101,666,947	104,952,150
106,545,410	115,017,104
111,869,337	127,057,739
117,528,961	138,416,628
123,612,372	152,177,964

If a collective bargaining agreement were to cause the personnel services portion of the units' budgets to increase at, say, 5.5 percent per year, the estimates would increase as follows:

Low Estimate	High Estimate
$ 97,882,190	$ 97,822,190
104,518,700	106,290,280
111,435,830	120,296,380
119,381,360	135,589,660
127,219,220	149,829,080
136,115,760	167,570,760

b. What are the major potentials for cost reduction?

The major potentials for reducing unit costs are degree options which reduce the required amount of formalized and supervised learning, and measures which reduce or avoid statewide or regional program duplication, course proliferation, and other arrangements which cause small classes where they are not required pedagogically.

Such steps are not simple, however, and require full assessment of effects upon program quality and objectives.

c. What should be the proportion of operating costs (tuitions, fees and room and board) borne by: 1. State, 2. Federal, 3. Student/Family, 4. Other?

d. What would be the effects of apportioning costs of higher education on ability of students to pay?

The Resource Group did not create a schedule of percentages by which costs should be allocated. Rather we respond with the following positions.

- The State should assume a substantially greater portion of the cost of student aid in the form of scholar incentive grants.

- The students' contribution should depend upon the level of program he is pursuing and his ability to pay. That is, tuition should be lowest in the lower division and highest at the graduate level, and scholar incentive grants should vary inversely with yearly family income.

- The provisions of the Federal Higher Education Ammendments of 1972 have the potential of increasing the Federal share of institutional and student expenses, but funding is not expected in the next few years.

The effect of increasing student financial assistance and awarding it on basis of ability to pay will be to make the public institutions more representative of the population.

e. What are cost barriers to higher educational opportunity?

Full-time attendance at a Connecticut public institution involves considerable planning and sacrifice for the average Connecticut student and his family. Yearly out-of-pocket costs range from $1,600 at a community college to more than $2,500 at the University. In a sample of twenty-one states Connecticut ranked as the fourth most expensive for tuition and required fees at the University and State College level. Without adequate student financial assistance in the form of grants, the current (or higher) costs will exclude from our institutions low income people, especially those without a family tradition of higher education.

f. For what programs/services/facilities should the state contract with independent colleges?

Public Act 140, which provides for contracting with the independent institutions, is not restricted to any list or categorization of services and the Resource Group does not believe it should be.

The Resource Group believes that Public Act 140 should be funded as soon as possible so that the Commission for Higher Education may be prepared to contract with the independent institutions as the needs of the state dictates.

g. What are potential implications of collective bargaining?

The principal potential implication is, of course, increased operating budget needs, but there are reasons to believe that this will not be realized, at least in the coming few years.

First, while many people expect that a collective bargaining agreement will soon be reached, it is far from certain. Second, it is not clear what the bargaining units or agents will be. And, third the current buyers' market for professional educational labor will tend to temper salary agreements.

The response to question "a", above, shows the effect of a 5.5 percent yearly increase in salaries at the public institutions.

BIBLIOGRAPHY

Document	Author or Source
1973-74 Operating and Capital Budget Recommendations of the Commission for Higher Education for the Connecticut System of Higher Education	Connecticut Commission for Higher Education
The Financial Crisis in Higher Education: Past, Present, and Future	James Byrnes and Dale Tussing, Educational Policy Research Center, Syracuse University, Sept., 1971
Who Benefits From Higher Education and Who Should Pay?	Howard Bowan and Paul Servelle, American Association for Higher Education, Washington, D. C. 20036, August, 1972
Expenditures for Public Institutions of Higher Education, 1969-70	Edric A. Weld, Jr., Journal of Higher Education, June, 1972
Financing Public Higher Education in Ohio	Paper by John D. Millet, Chancellor Emeritus, Ohio Board of Regents
Who Should Pay?	John D. Millet, Journal of Higher Education, October, 1972
Financial Statistics of Institutions of Higher Education 1967-68	Office of Education, U. S. Department of Health, Education, and Welfare
State Government Finances	Bureau of the Census, U. S. Dept. of Commerce
The Academic Revolution	Christopher Jencks and David Riesman, Doubleday, Garden City, New York, 1968
State Funds for Colleges per Capita	The Chronicle of Higher Education, January 3, 1972
Colloquium on Higher Education, September, 1972	Connecticut Commission for Higher Education
Handbook: Higher Education in Connecticut	Connecticut Commission for Higher Education, November, 1972

Document	Author or Source
Financing Higher Education: Report of Task Force III, December, 1970	Connecticut Commission for Higher Education
Work Load Assignments	Dorothy C. Goodwin, Handbook of College and University Administration, Academic Vol. 2, McGraw Hill Book Co., New York 1970
Ford Foundation Studies in Income Contingent Loans for Higher Education	Ford Foundation, Office of Reports, 320 East 43rd Street, New York, N. Y. 10017
The New Depression in Higher Education	Earl F. Cheit, The Carnegie Commission on Higher Education, 1970
The More Effective Use of Resources: An Imperative for Higher Education	Carnegie Commission on Higher Education, July, 1972
Strengthening Management and Budget Functions in the Connecticut State Government	The Federal Technical Assistance Program (copy at the Commission for Higher Education)
Higher Education Annual Enrollment Survey, 1971	Connecticut Commission for Higher Education